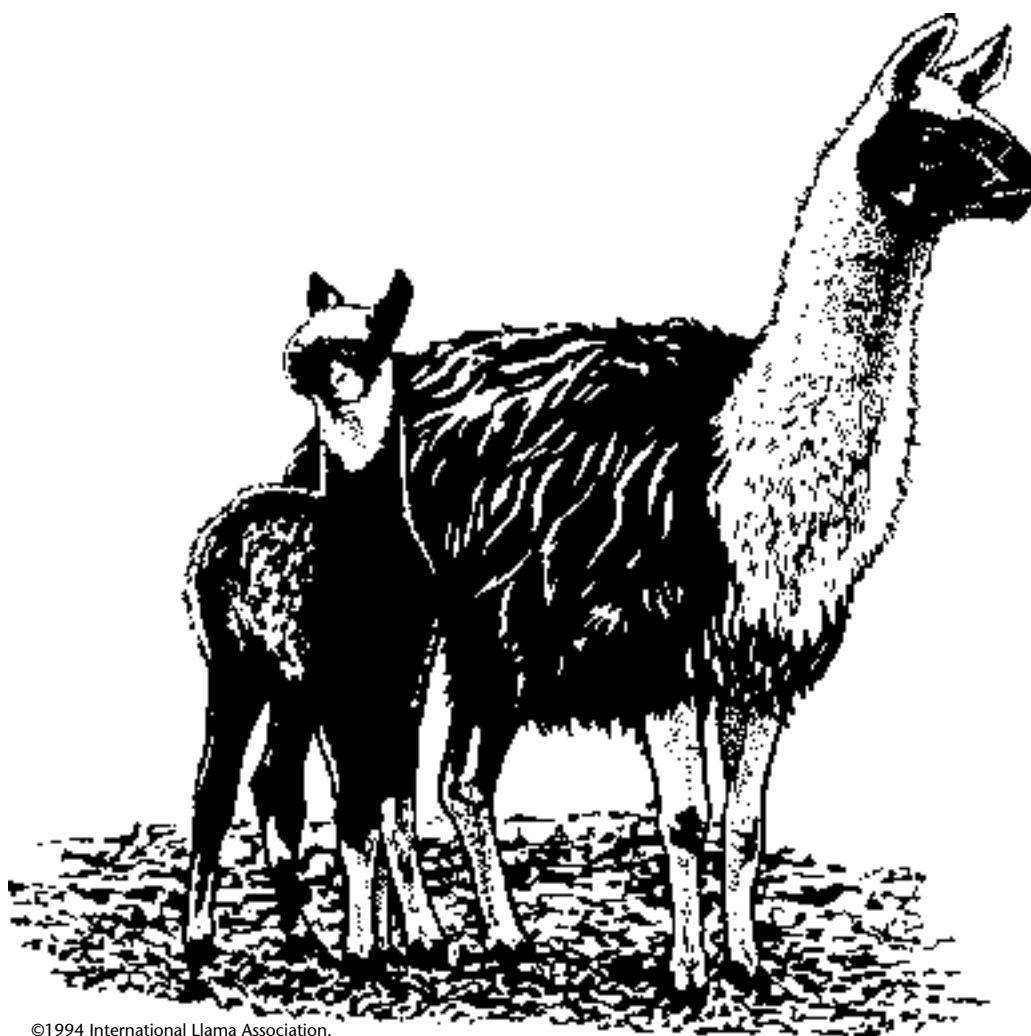


4-H Leader's Manual for Llama Activities



©1994 International Llama Association.

4-H MOTTO

"TO MAKE THE BEST BETTER"

4-H CLUB 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.**

PLEDGE TO THE FLAG

**I PLEDGE ALLEGIANCE TO THE FLAG OF THE
UNITED STATES OF AMERICA AND TO THE
REPUBLIC FOR WHICH IT STANDS, ONE
NATION UNDER GOD, INDIVISIBLE, WITH
LIBERTY AND JUSTICE FOR ALL.**

This manual has been approved by the Wyoming State 4-H Office. It has not yet been submitted to the National 4-H Office for approval. You may wish to submit this for approval in your individual state.

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INTRODUCTION TO THE LLAMA

BACKGROUND BASICS

Llamas are members of the camel (camelid) family. Originating on the Central Plains of North America about 40 million years ago, llama-like animals dispersed to South America about 2.5 million years ago. By the end of the last Ice Age (10,000–12,000 years ago), camelids were extinct in North America. Llamas were domesticated from guanacos in the Andean highlands of Peru 5,000 to 6,000 years ago, and are among the oldest domestic animals in the world. Primarily a beast of burden for the native herdsman, llamas also provided them with meat, wool for clothing, hides for shelter and dried manure pellets for fuel. They were sometimes used as offerings to the gods. Today there are an estimated seven million llamas and alpacas (in approximate equal numbers) in South America and 74,000–77,000 llamas and 5,300–5,700 alpacas in the United States and Canada.

PHYSICAL FACTS ABOUT LLAMAS

Life span:	About 15–20 years
Weight:	250–450 pounds
Height:	36–47 inches at the shoulders; 60–77 inches at the head
Average gestation:	350 days
Birth:	A single baby (“cria”) is normally delivered without assistance from a standing mother during daylight hours. Twinning very rarely occurs.
Babies:	Birth weight is 20–35 pounds. Babies are normally up and nursing within 90 minutes. They are weaned at about six months old.
Reproduction:	Females are first bred at 16–24 months of age. Llamas do not have a heat cycle, but are induced ovulators (ovulation occurs 24–36 hours after breeding). Thus, they can be bred at any time of year.
Color:	Wool ranges from white to black, with shades of gray, beige, brown, red and roan in between. It may be solid, spotted, or marked in a variety of patterns.
Health:	Because llamas and their ancestors are specially suited to the harsh environment of their Andean homeland, North American owners will find them remarkably hardy, healthy, easy to care for, and remarkably disease free.

LLAMA FACTS

Llamas are adaptable to any climate or altitude. In extreme weather, a three-sided shelter is recommended for protection from wind, snow, or heat.

Llamas communicate in several ways. Sometimes, they communicate with a series of ear, body and tail postures. At other times, they make a shrill alarm call or clucking sound. They also make a humming sound.

Llamas have a useful coat of wool. It takes 24 months to grow the longest fibers, but a complete coat will come back in 12 months. They could be sheared yearly. A llama will produce from 3–8 pounds of wool per year. If shorn, one should not clip closer than one inch from the skin with sheep shears so the llama has ample protection from the sun. It is acceptable to brush and comb the llama's wool. Wool fibers are from 2–8 inches in length.

Spitting is the llama's way of saying, "Bug off!" Normally it is used only among llamas to divert annoying suitors, ward off a perceived threat, or most commonly, to establish pecking order at mealtime. Occasionally a llama who has been forced to tolerate excessive human handling may have developed an intolerance for or fear of humans, and will spit if it feels threatened by them.

Llamas require little care compared to other animals. Good hay when there is no pasture, fresh water, an iodized salt block, and a mineral block are all they need. Most United States pastures are low in selenium, a mineral important to llamas. It is important to know if pastures in your area are deficient and if they are, to provide supplements. They also like a variety of grains but it is not necessary with good pasture or hay. One 50 pound bale of grass hay will feed one llama for one week.

Any type of standard fence is adequate for llamas. Forty inches in height is sufficient. Board, wire mesh, pole, or barbed wire are all fine. If there is too much space between the ground and the fence, a baby can crawl under. Llamas can be trained to jump, but under normal circumstances, have no desire to escape an enclosure. Little land is required; one acre is enough for several llamas.

Llamas are very clean animals and have no odor. They defecate in one place, and the manure, high in nitrogen, is excellent fertilizer for gardens.

THINGS TO KNOW ABOUT LLAMAS

Llamas are used in many ways. These include breeding stock, pack animals, wool production, therapy, and pets.

Llamas are intelligent and easy to train. In just a few repetitions they will pick up and retain many behaviors such as accepting a halter, being fed, loading in and out of a vehicle, and pulling a cart or carrying a pack.

When training a llama, it is very important to remember that practicing with the llama often and repeating the actions will help the llama become familiar with what is expected. Be sure to give the llama verbal praise as it completes the required task. As the llama works with the trainer, it learns to trust the trainer and becomes more and more cooperative.

To help a llama become comfortable with being touched, move slowly and talk softly to help it relax. Stroke the llama while talking and move to different areas such as the head, legs and belly. This is called desensitizing the llama. With practice, the llama will become comfortable with being stroked all over its body.

Llamas have wool. The wool is grease-free. Lightweight llama wool is warm and luxurious and popular with spinners and weavers. Llama wool is made of two kinds of fiber. Guard hair is coarse and shiny. Undercoat is soft and used by the spinners and weavers.

Llamas are excellent packers. They can carry 50–120 pounds, but are not ridden except by children. Their two-toed foot with its leathery bottom pad gives them great surefootedness. This foot, and the llama's ability to browse, gives the llama a low impact on the environment equivalent to that of a large deer.

Llamas are a modified ruminant with a three-compartment stomach. They chew their cud like cattle and sheep. They have front teeth on the lower jaw only. Because of a relatively low protein requirement due to their efficient digestive systems, they can be kept on a variety of pastures or hay.

Llamas are a highly social animal and need the companionship of their species. Independent yet shy, llamas are gentle and curious. Their calm nature and common sense make them easy for anyone, even children, to handle. They treat each other and each other's babies with affection and concern. They lay down at night in family groups and bad weather finds them side by side in large groups.

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LANA News. Llama Association of North America, 1800 S. Obenchain Rd, Eagle Point, OR 97524. Phone: (503)830-5262.

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Larry H. Kuhl and Barbara Robertson. *Introduction to the Llama*. Virginia Cooperative Extension Service. Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.

4-H MINI LEVEL PROJECT BOOK

Introduction to the Llama

Name: _____ Date of Birth: _____
Address: _____ Age: _____
Town or City: _____ Zip: _____
Name of Club: _____

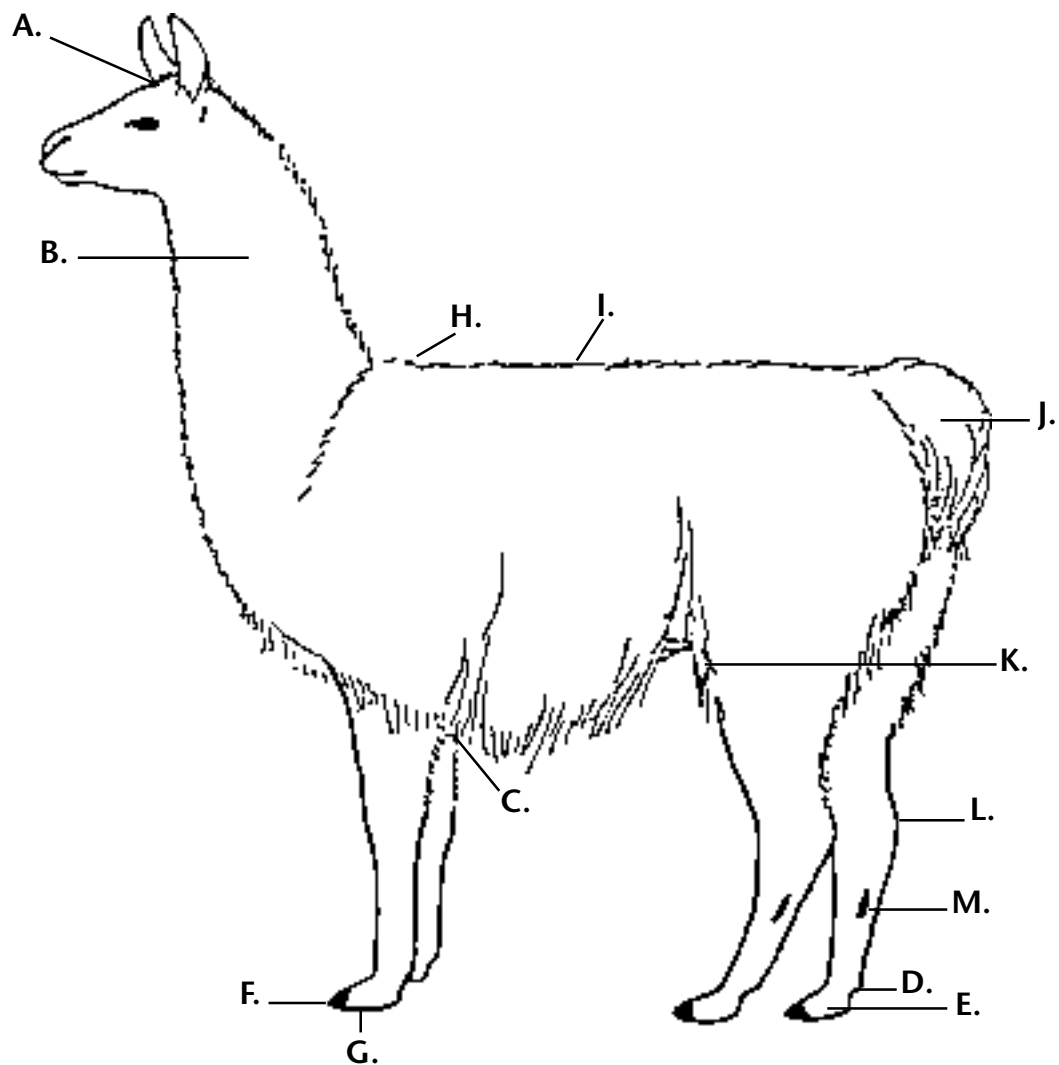
MINI YOUTH PROJECT QUESTIONS

1. Llamas are a member of the family _____
2. List three ways in which a llama is used:
 1. _____
 2. _____
 3. _____
3. How many toes are on a llama's foot? _____
4. How many compartments are in a llama's stomach? _____
5. How many years does the average llama live? _____
6. How many days are there during the average gestation period of a female llama? _____
7. What is a baby llama called? _____
8. A baby "weighs in" at birth, on the average of how many pounds? _____
9. How many feet tall (from the toe to the top of the head) is the average llama? _____
10. Give two reasons why a llama may spit:

11. Identify the following body parts on the llama diagram on page M/6.

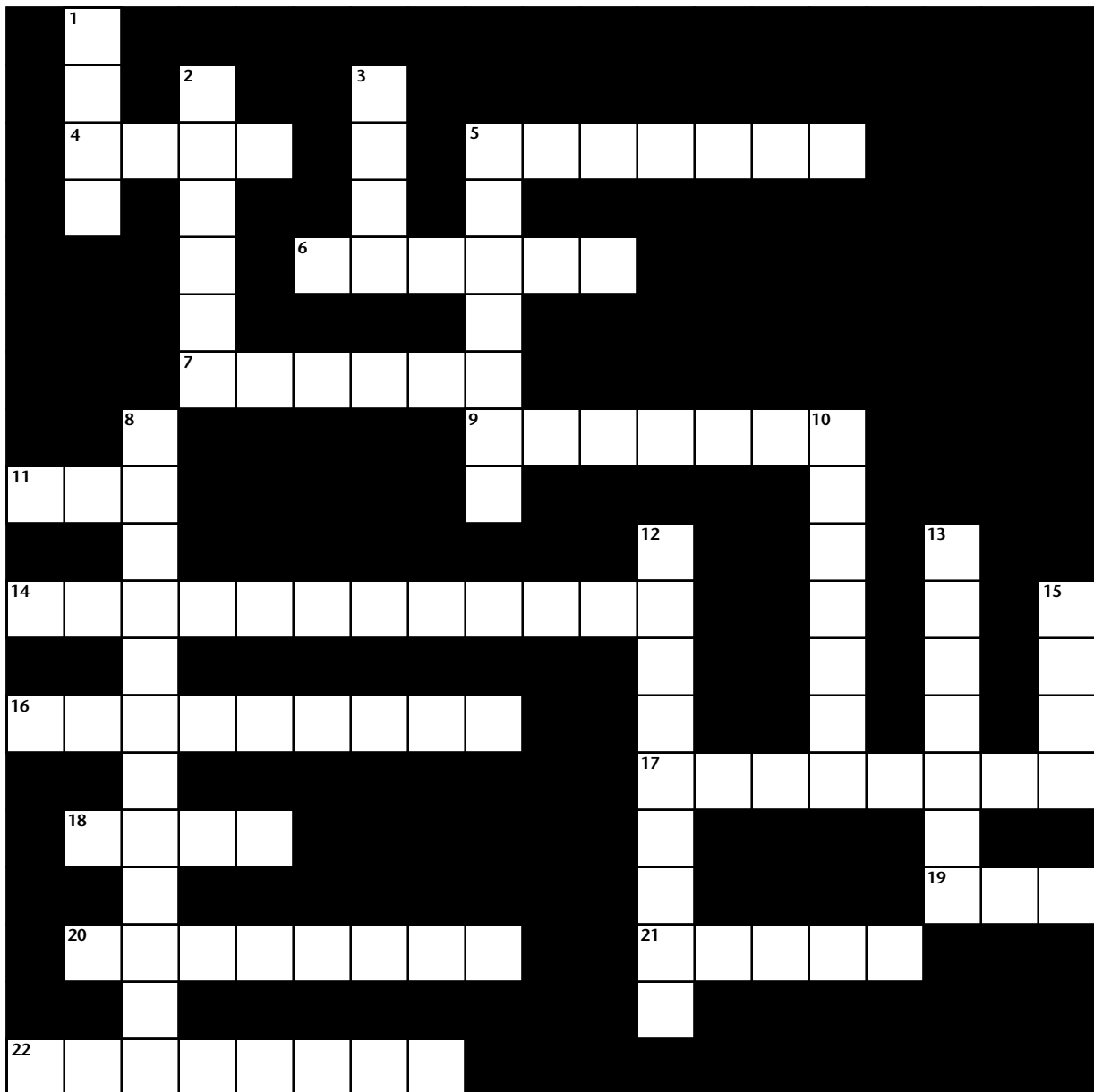
_____ Scent Gland	_____ Fetlock
_____ Hock	_____ Elbow
_____ Neck	_____ Stifle
_____ Poll	_____ Tail
_____ Pastern	_____ Back
_____ Toenail	_____ Pad
_____ Withers	

MINI LEVEL DIAGRAM



[illegible]

MINI LEVEL CROSSWORD PUZZLE



CLUES: MINI LEVEL CROSSWORD PUZZLE

ACROSS CLUES

4. A baby llama.
5. A neutered llama.
6. A girl llama.
7. A camelid that is short and used primarily for its wool.
9. Llamas are members of this family.
11. How many toes on each foot does a llama have?
14. A person you should know and who you can call if a llama is sick.
16. Stiffer more coarse part of wool.
17. Animals that chew cud.
18. Approximately how long is a llama's gestation?
19. A sound a llama makes.
20. These kind of teeth should be trimmed or removed from a male llama.
21. The mountain range from which llamas originated in South America.
22. Lots of this will help a llama feel comfortable in a show ring. "_____ makes perfect!"

DOWN CLUES

1. The word that describes what a llama does when it carries a load.
2. Smaller South American wild camelid.
3. A boy llama.
5. The camelid from which llamas are domesticated.
8. Continent from which llamas originated.
10. Any animal that has been developed to help man.
12. The part of wool that is fine and primarily used for spinning.
13. A llama has three compartments in this.
15. The way a llama says, "Bug Off!"

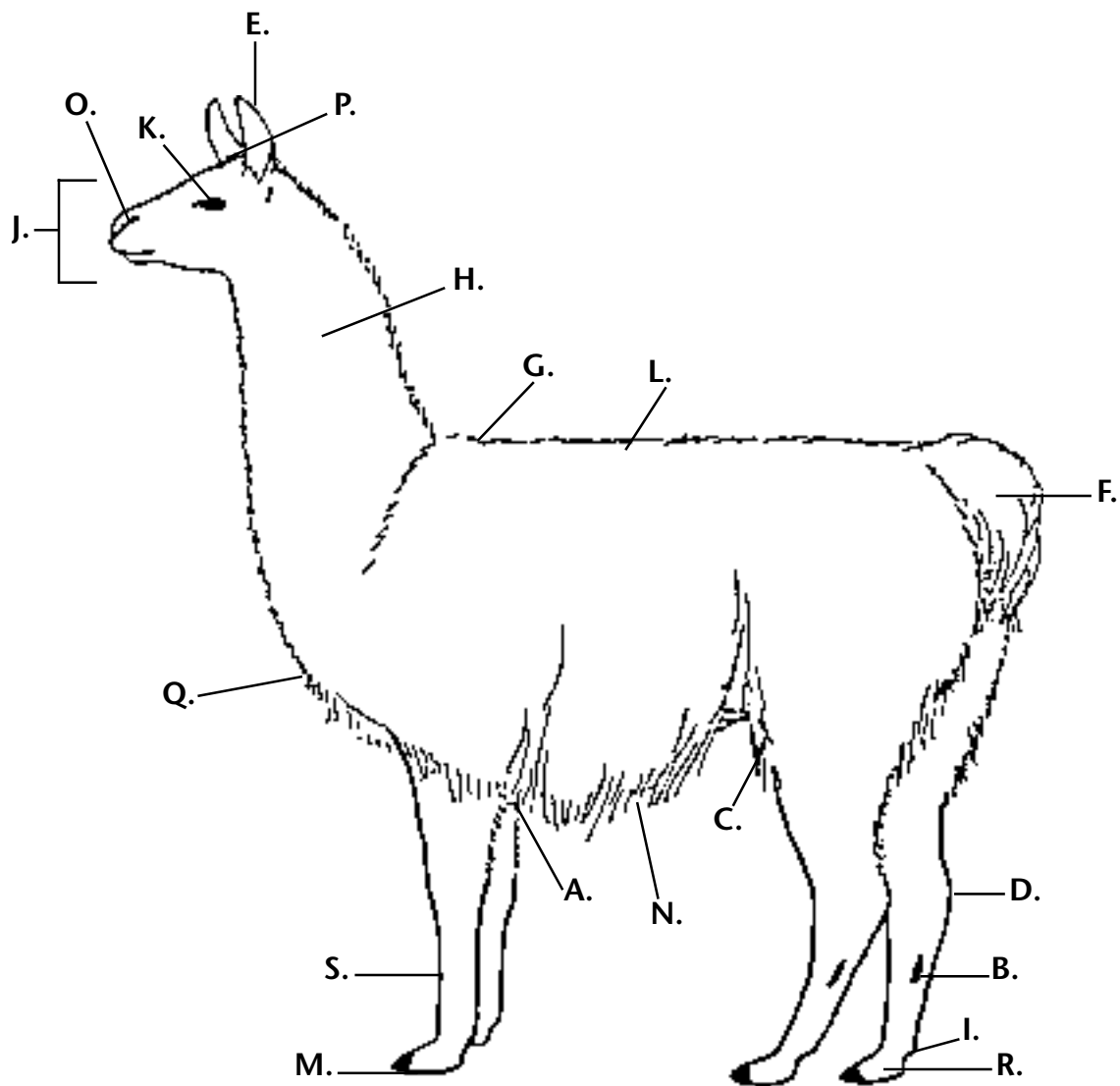
WORD LIST: MINI LEVEL CROSSWORD PUZZLE

ALPACA
ANDES
CAMELID
CRIA
DOMESTIC
FEMALE
FIGHTING
GELDING

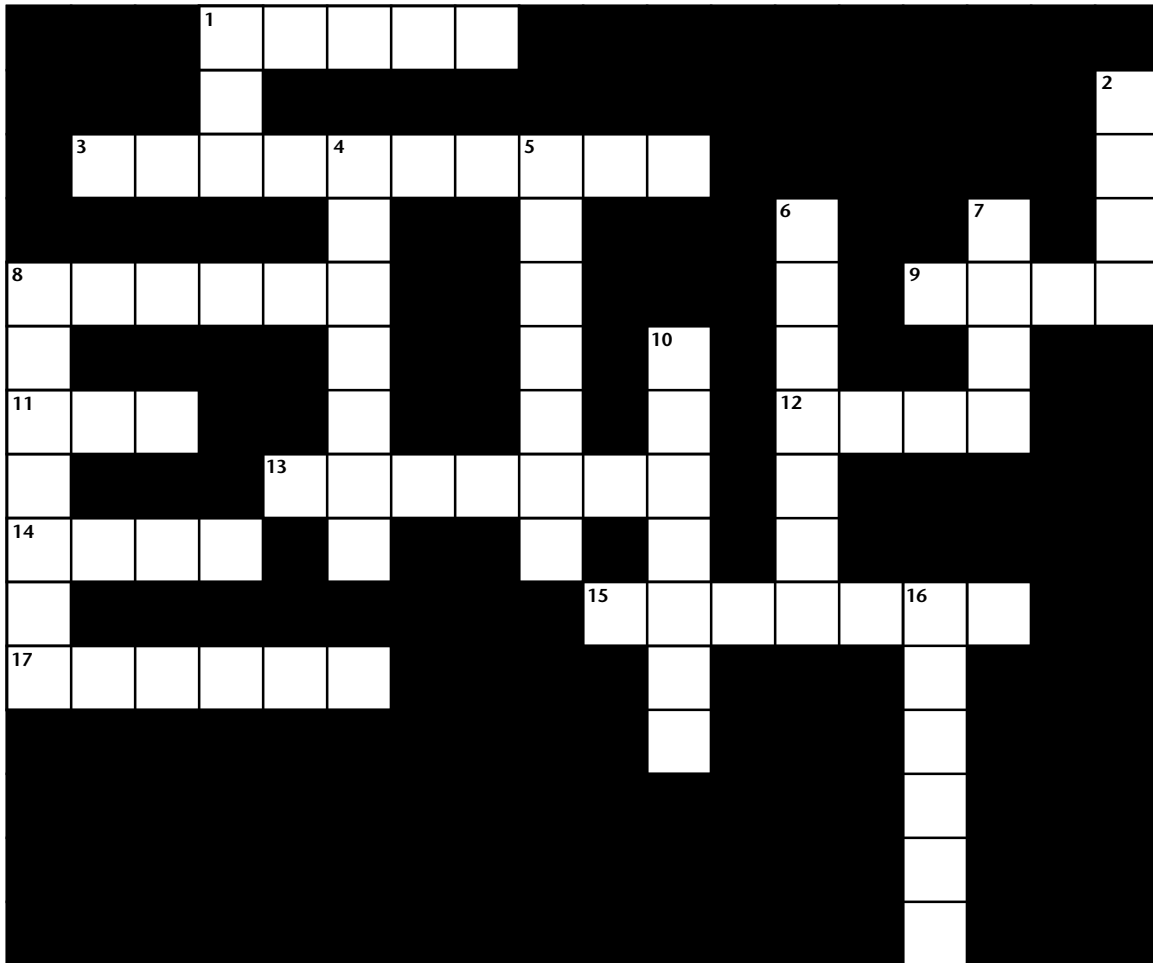
GUANACO
GUARD HAIR
HUM
MALE
PACK
PRACTICE
RUMINANT
SOUTH AMERICA

SPIT
STOMACH
TWO
UNDERCOAT
VETERINARIAN
VICUNA
YEAR

MINI LEVEL DIAGRAM CROSSWORD PUZZLE



MINI LEVEL DIAGRAM CROSSWORD PUZZLE



CLUES: MINI LEVEL DIAGRAM CROSSWORD PUZZLE

ACROSS	CLUES	DOWN	CLUES
1.	A	1.	K
3.	B	2.	L
8.	C	4.	M
9.	D	5.	N
11.	E	6.	O
12.	F	7.	P
13.	G	8.	Q
14.	H	10.	R
15.	I	16.	S
17.	J		

WORD LIST: MINI LEVEL DIAGRAM CROSSWORD PUZZLE

ABDOMEN
BACK
CANNON
EAR
ELBOW
EYE
FETLOCK

HOCK
MUZZLE
NECK
NOSTRIL
PASTERN
POLL

SCENT GLAND
STIFLE
STERNUM
TAIL
TOENAIL
WITHERS

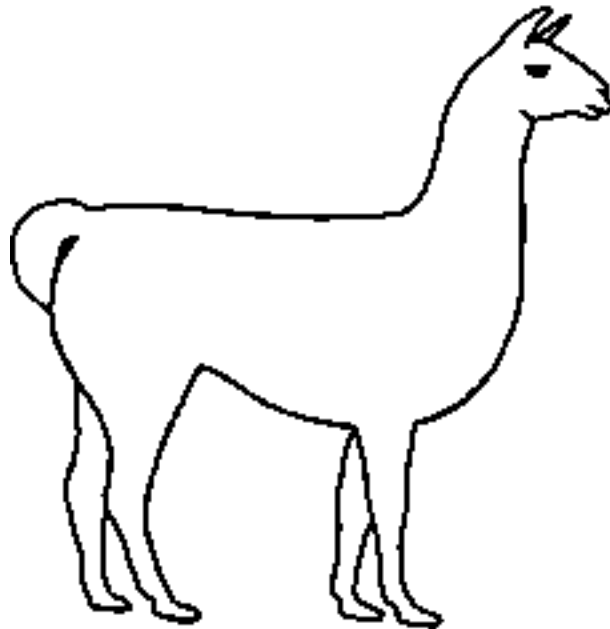
My Llama Photo Page

(Give activities, dates, and captions. Add more sheets as needed)

This project was completed on _____
date member signature
club leader

LLAMA

4-H BEGINNER PROJECT BOOK



LLAMA BEGINNER PROJECT

OUTLINE FOR PROJECT LEVEL

- I. History and Background**
- II. The Llama and His Behavior**
- III. Types**
- IV. Conformation and Correctness**
- V. Temperament**
- VI. Purchasing a Llama**
- VII. Shelter**
- VIII. Diet**
- IX. General Health and Maintenance**
 - A Vaccinations**
 - B. Parasites**
 - C. Teeth and Feet**
- X. Llama Training**
 - A. Equipment**
 - B. Procedure**
 - C. Packing**

Youth Llama Project Personal Journal

BEGINNER LEVEL

I. HISTORY & BACKGROUND

Name four members of the South American Camelid family.

1. _____
2. _____
3. _____
4. _____

Explain the difference between a wild and domestic animal.

Wild: _____

Domestic: _____

Name two uses for llamas.

1. _____
2. _____

Looking at the map of the Western Hemisphere on page 22, identify the continent from which llamas and alpacas originate. Label and color it green.

Locate on this map where you live. Color that continent blue.

II. THE LLAMA & HIS BEHAVIOR

An average adult llama is _____ inches tall at the shoulders.

I am _____ feet tall from head to foot.

Where are llamas missing teeth? _____

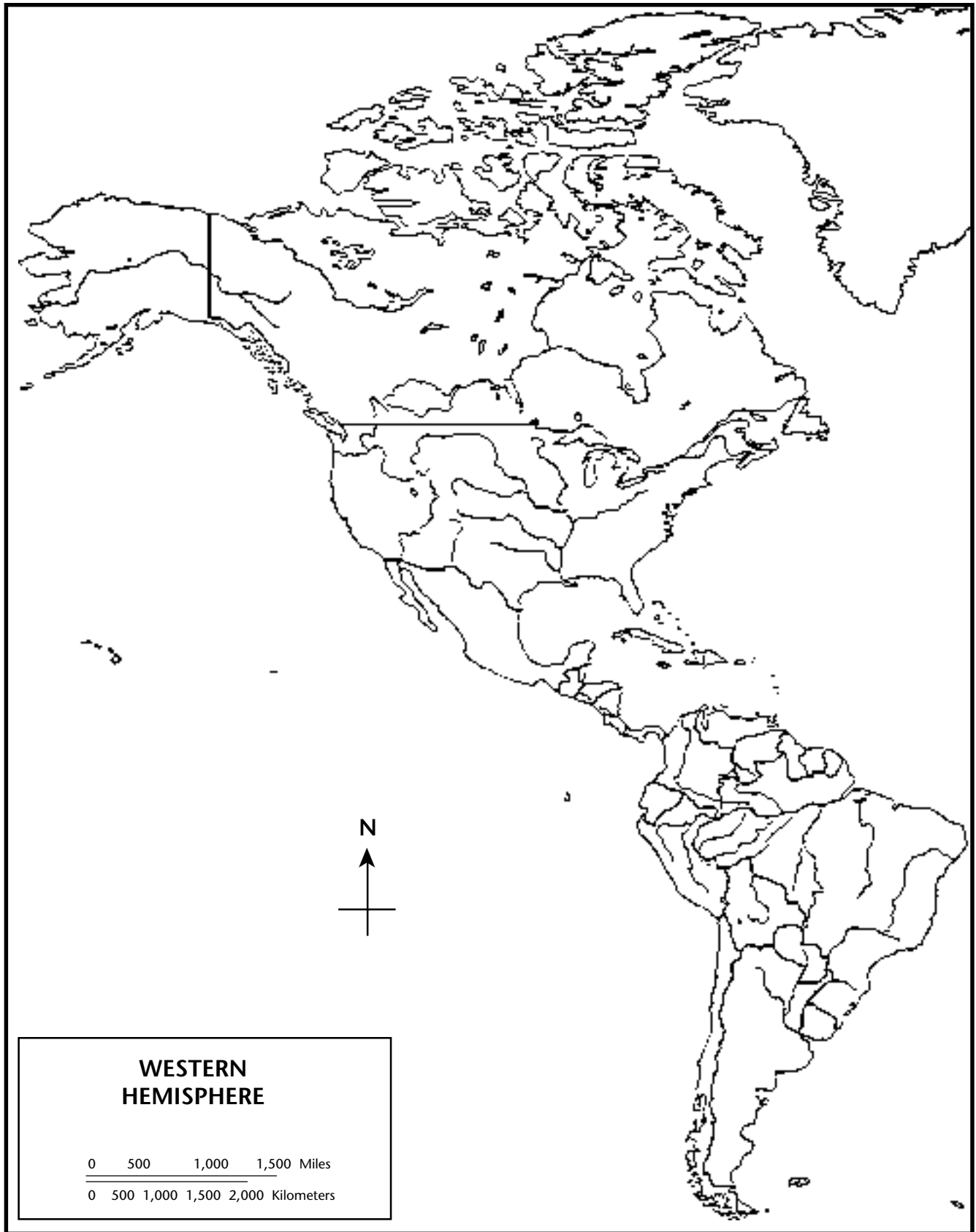
How many compartments are in a llama's or alpaca's stomach? _____

Since llamas and alpacas are herd animals, they should always have _____ with them.

When or why does a llama spit? _____

Identify the following body parts on the llama diagram on page 23.

- | | |
|-----------------------|------------------------------|
| _____ Pastern | _____ Withers |
| _____ Abdomen (belly) | _____ Fetlock |
| _____ Poll | _____ Hock |
| _____ Back | _____ Toenail |
| _____ Tail | _____ Neck |
| _____ Knee (carpus) | _____ Chestnut (scent gland) |

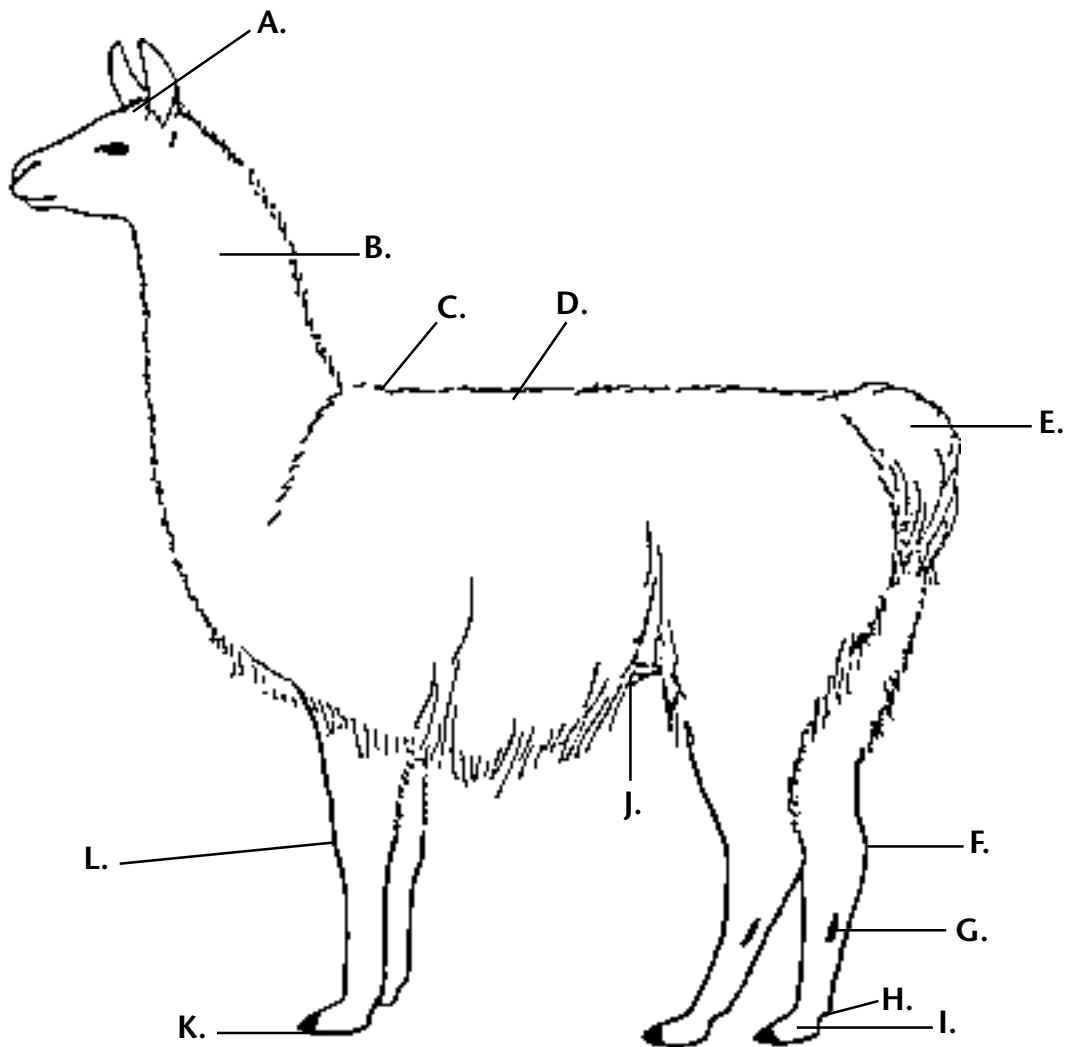


**WESTERN
HEMISPHERE**

0 500 1,000 1,500 Miles

0 500 1,000 1,500 2,000 Kilometers

BEGINNER LEVEL DIAGRAM



III. TYPES

Name four colors of llama wool.

1. _____
2. _____
3. _____
4. _____

For shows, llamas are typed or grouped according to the length of their _____

IV. CONFORMATION & CORRECTNESS

The way a llama is put together is called _____

V. TEMPERAMENT

Llamas, like all other animals and people, have their own _____

VI. PURCHASING A LLAMA

Llamas are good companions because they are _____
and _____

VII. SHELTER

How can a llama be protected from sun, rain, and wind? _____

VIII. DIET

What are the three main parts of a llama's diet?

1. _____
2. _____
3. _____

IX. GENERAL HEALTH & MAINTENANCE

Describe one type of preventive medicine a llama owner should use to help keep a llama healthy. _____

A. *VACCINATIONS*

Why do llamas and alpacas need to be vaccinated? _____

B. *PARASITES*

Worms living inside a llama are an example of _____

C. *FEET*

List two parts of a llama's toe.

1. _____
2. _____

D. *HEAT STRESS & COLD WEATHER*

What is the normal temperature of an adult llama? _____

What types of weather cause the most stress on a llama? _____

Is it healthy for a trainer to drastically change the type of food fed to a llama? _____

X. LLAMA TRAINING

List two ways to decrease stress on a llama while showing the animal.

1. _____
2. _____

If a trainer talks softly to a llama, what will probably happen? _____

A. *EQUIPMENT*

Is it acceptable for the trainer to wrap a llama's lead rope around his/her hand? _____

Where should the noseband of a halter lay on a llama's or alpaca's face? _____

How far away from the halter should a trainer grip the lead rope? _____

B. PROCEDURE

Should a trainer move **fast** or **slow** around a llama and/or alpaca to help the animal gain trust in the trainer? _____

List three ways to gain a llama's trust.

1. _____

2. _____

3. _____

What are the two most important things a trainer can do while working with a llama, when teaching him to accept a brush or halter?

1. _____

2. _____

If a llama does not want to walk with its trainer, how might it be encouraged by that trainer? _____

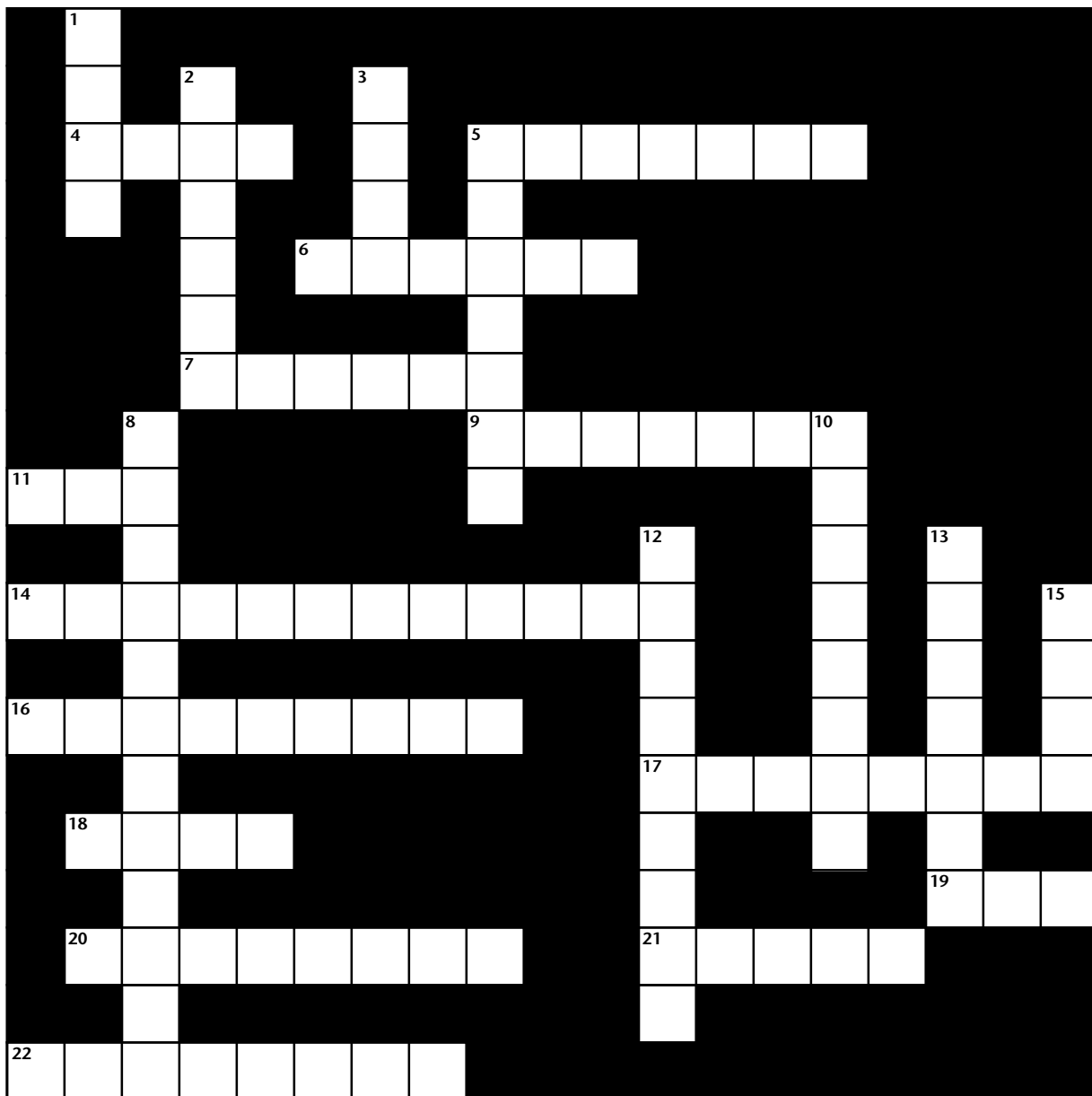
What does desensitize mean? _____

What is the word that means lying down on command? _____

C. PACKING

What can be done for a llama by its trainer to show approval and to help the llama enjoy packing? _____

BEGINNER LEVEL CROSSWORD PUZZLE



CLUES: BEGINNER LEVEL CROSSWORD PUZZLE

ACROSS CLUES

4. A baby llama.
5. A neutered llama.
6. A girl llama.
7. A camelid that is short and used primarily for its wool.
9. Llamas are members of this family.
11. How many toes on each foot does a llama have?
14. A person you should know and who you can call if a llama is sick.
16. Stiffer, more coarse wool.
17. Animals that chew cud.
18. Approximately how long is a llama's gestation?
19. A sound a llama makes.
20. These kind of teeth should be trimmed or removed from a male llama.
21. The mountain range from which llamas originated in South America.
22. Lots of this will help a llama feel comfortable in a show ring. "_____ makes perfect!"

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2. Smaller South American wild camelid.
3. A boy llama.
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8. Continent from which llamas originated.
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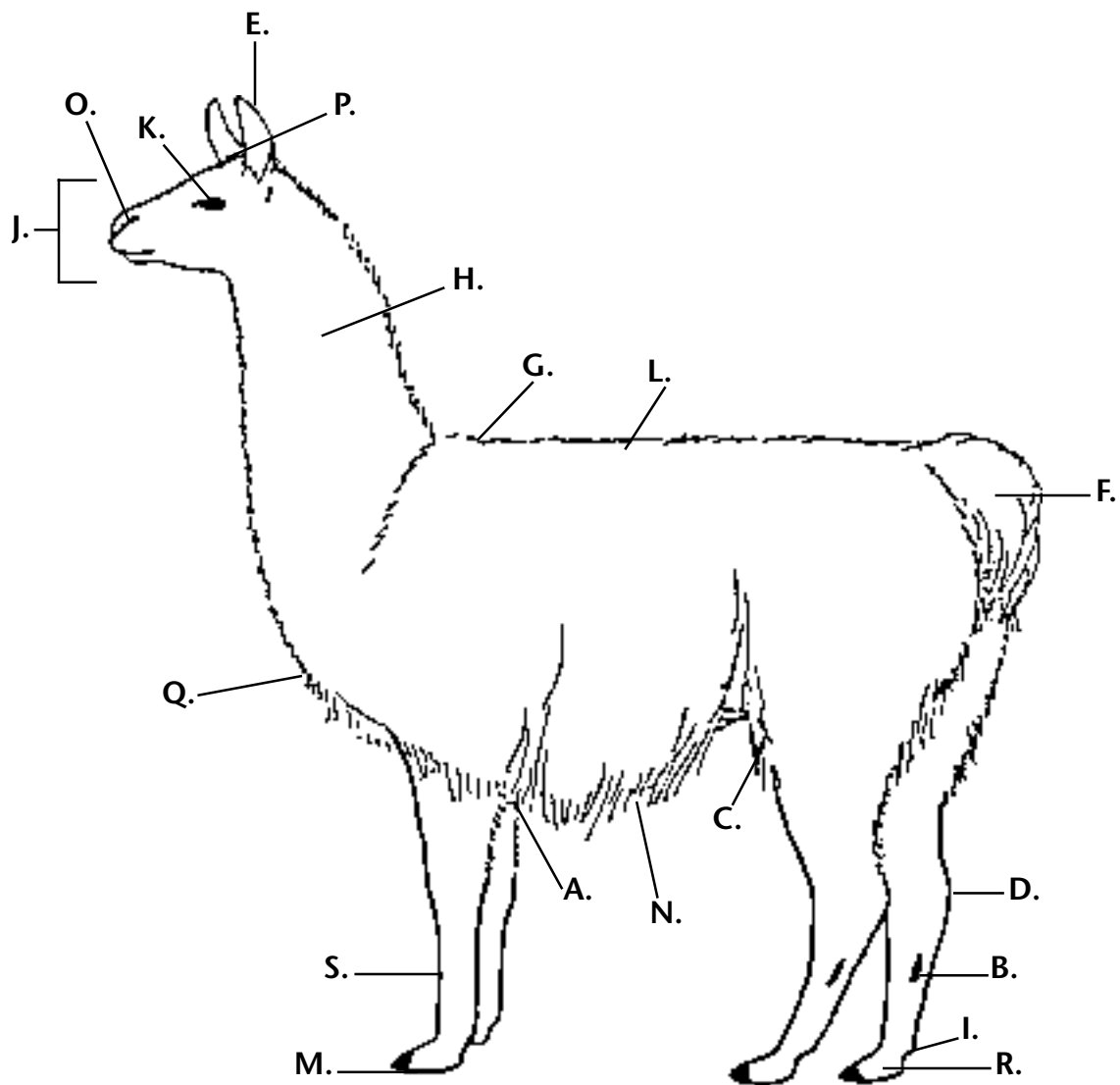
WORD LIST: BEGINNER LEVEL CROSSWORD PUZZLE

ALPACA
ANDES
CAMELID
CRIA
DOMESTIC
FEMALE
FIGHTING
GELDING

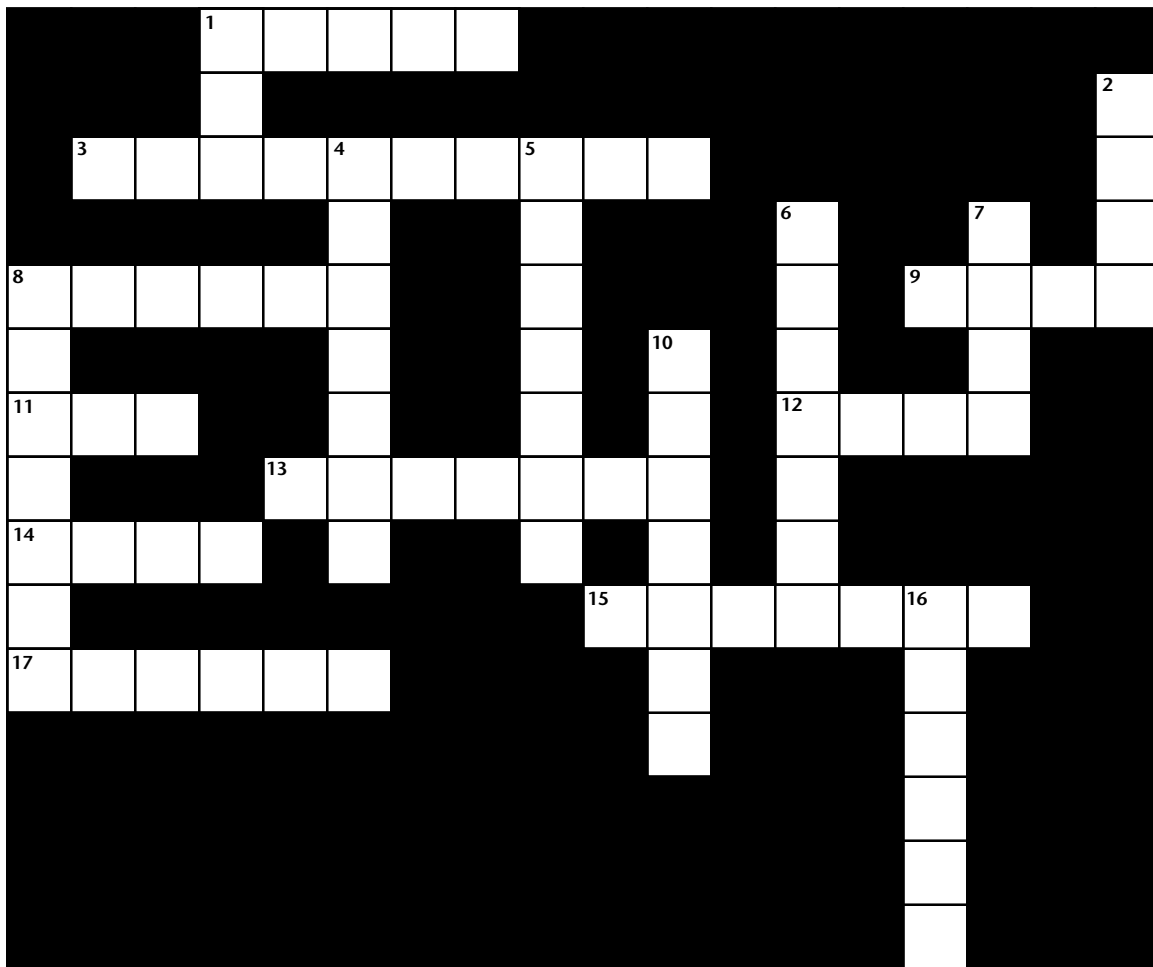
GUARD HAIR
GUANACO
HUM
MALE
PACK
PRACTICE
RUMINANT
SOUTH AMERICA

SPIT
STOMACH
TWO
UNDERCOAT
VETERINARIAN
VICUNA
YEAR

BEGINNER LEVEL DIAGRAM CROSSWORD PUZZLE



BEGINNER LEVEL DIAGRAM CROSSWORD PUZZLE



CLUES: BEGINNING LEVEL DIAGRAM CROSSWORD PUZZLE

ACROSS	CLUES	DOWN	CLUES
1.	A	1.	K
3.	B	2.	L
8.	C	4.	M
9.	D	5.	N
11.	E	6.	O
12.	F	7.	P
13.	G	8.	Q
14.	H	10.	R
15.	I	16.	S
17.	J		

WORD LIST: BEGINNING LEVEL DIAGRAM CROSSWORD PUZZLE

ABDOMEN
BACK
CANNON
EAR
ELBOW
EYE
FETLOCK

HOCK
MUZZLE
NECK
NOSTRIL
PASTERN
POLL

SCENT GLAND
STIFLE
STERNUM
TAIL
TOENAIL
WITHERS

My Llama Photo Page

(Give activities, dates, and captions. Add more sheets as needed)

This project was completed on _____
date member signature
club leader

LLAMA

4-H INTERMEDIATE PROJECT BOOK



LLAMA INTERMEDIATE PROJECT

OUTLINE FOR PROJECT LEVEL

- I. History and Background**
- II. The Llama and His Behavior**
- III. Types**
- IV. Conformation and Correctness**
- V. Temperament**
- VI. Purchasing a Llama**
- VII. Shelter**
- VIII. Diet**
- IX. General Health and Maintenance**
 - A Vaccinations**
 - B. Parasites**
 - C. Teeth and Feet**
- X. Llama Training**
 - A. Equipment**
 - B. Procedure**
 - C. Packing**

Youth Llama Project Personal Journal

INTERMEDIATE LEVEL

I. HISTORY & BACKGROUND

Name four members of the South American Camelid family.

1. _____
2. _____
3. _____
4. _____

State four reasons why llamas have become popular in the United States.

1. _____
2. _____
3. _____
4. _____

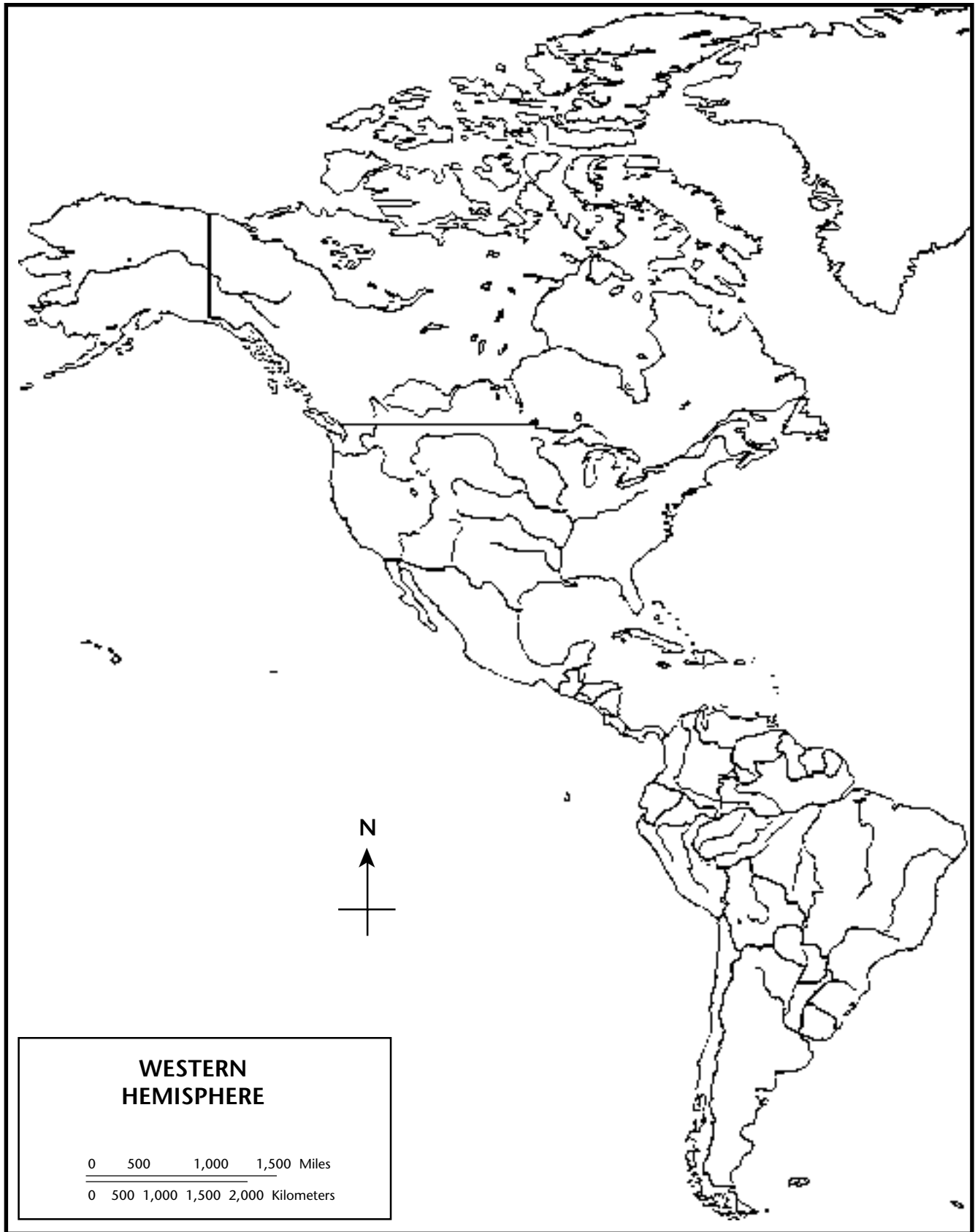
Baby llamas are called _____

Which of the South American camelids are domestic? _____

Which of the South American camelids are wild? _____

What group of people are given credit for domesticating the llama and alpaca? _____

Looking at the map of the Western Hemisphere on page 36, identify the countries in South America where llamas and alpacas originated. Locate where you live, too. Color the map.



II. THE LLAMA & HIS BEHAVIOR

An adult llama weighs between _____ and _____ pounds.

My pet _____ weighs _____ pounds.

Why are llamas and alpacas called cloven footed? _____

Why is it impossible to find a "buck-toothed" llama? _____

Name four animals that are ruminants.

1. _____ 3. _____

2. _____ 4. _____

The best companion for a llama or alpaca is _____

Can llama spit really hurt someone? _____

III. TYPES

What two basic types of fiber comprise a llama's coat?

1. _____

2. _____

Match the llama type that is probably best suited for each kind of activity listed below.

Short-woolled _____ Spinning & weaving

Long-woolled _____ Packing

_____ Companion

What are the two basic types of llamas?

1. _____ 2. _____

Identify the following body parts on the llama diagram on page 38.

_____ Elbow

_____ Pad

_____ Fetlock

_____ Poll

_____ Pastern

_____ Toenail

_____ Cheek

_____ Fetlock

_____ Chestnut (scent gland)

_____ Ear

_____ Hock

_____ Knees (carpus)

_____ Stifle

_____ Croup

_____ Withers

_____ Back

_____ Abdomen (belly)

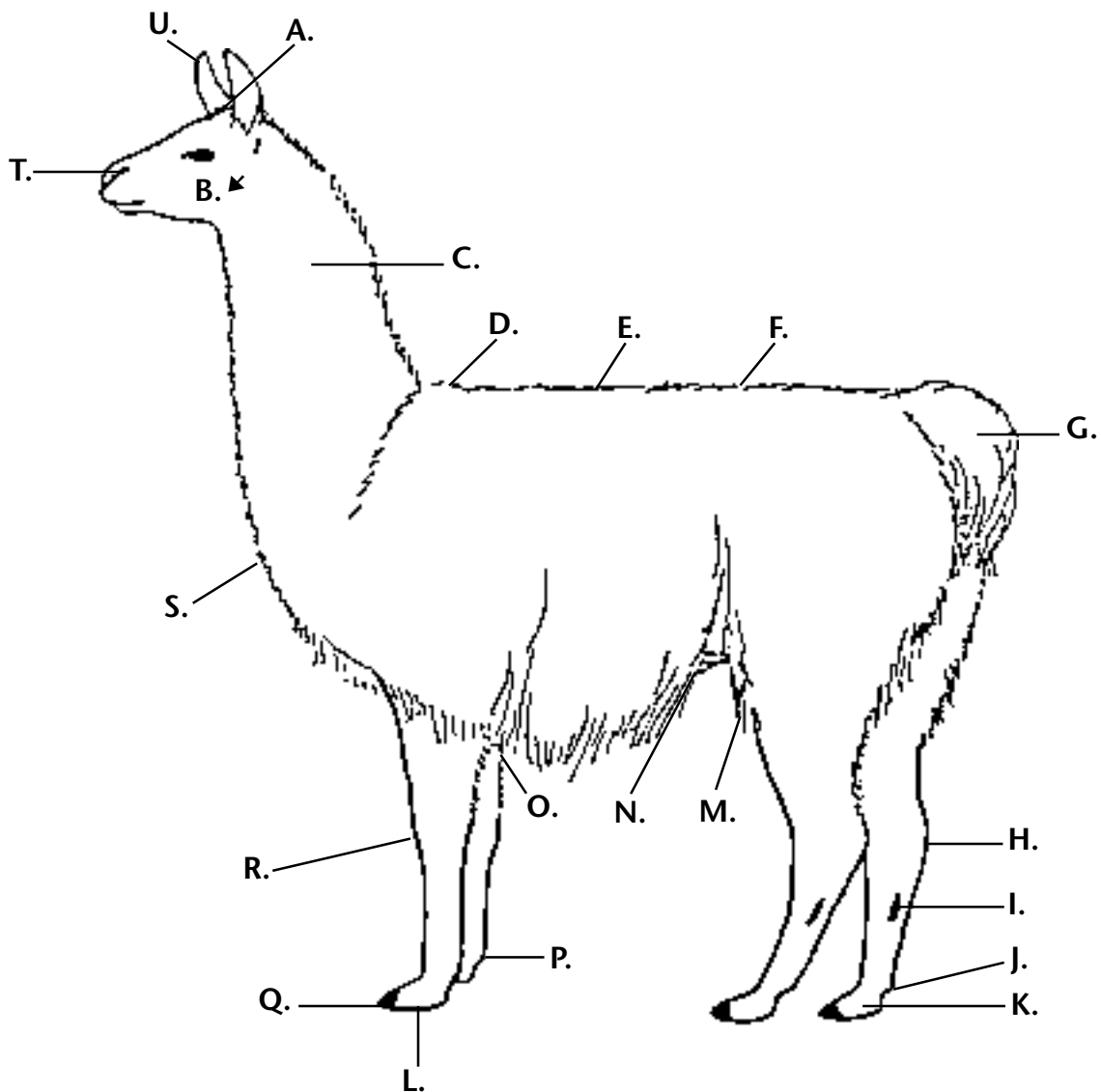
_____ Sternum (breastbone)

_____ Tail

_____ Nostril

_____ Neck

INTERMEDIATE LEVEL DIAGRAM



IV. CONFORMATION & CORRECTNESS

If a llama is correct, it has good _____

V. TEMPERAMENT

Explain why caution should be taken if a llama is too friendly when young. _____

VI. PURCHASING A LLAMA

List three things to consider when choosing a llama for a 4-H project.

1. _____
2. _____
3. _____

VII. SHELTER

Does a llama need shelter? _____ Why? _____

VIII. DIET

During which season of the year might it be most important to provide supplemental feeding for a llama? _____

IX. GENERAL HEALTH & MAINTENANCE

List two types of preventative medicine a llama owner should use to help keep a llama healthy.

1. _____
2. _____

A. VACCINATIONS

What are two things llamas and alpacas should be vaccinated for?

1. _____
2. _____

B. PARASITES

List three ways internal parasites can affect a llama.

1. _____
2. _____
3. _____

List two types of external parasites.

1. _____
2. _____

C. TEETH & FEET

When is a llama more likely to need its toenails trimmed? _____

What are the purpose of fighting fangs and who gets them? _____

D. HEAT STRESS & COLD WEATHER

What is the normal temperature of an adult llama versus the temperature of a cria?

List three signs of heat stress.

1. _____
2. _____
3. _____

What will a sudden change in diet cause to happen with a llama? Why? _____

X. TRAINING

List four ways to decrease stress on a llama while showing the animal.

1. _____
2. _____
3. _____
4. _____

List two ways to help a llama or alpaca relax when training.

1. _____
2. _____

A. EQUIPMENT

Why is it not acceptable for the trainer to wrap a llama's lead rope around his/her hand? _____

How does more experience help a good llama trainer become a better llama trainer?

Name two styles of halters and the differences in each.

1. _____
2. _____

Explain why you should not hold onto the snap when your llama is on lead. _____

B. PROCEDURE

Sessions of approximately _____ minutes are appropriate when starting to train a llama.

List six places that are important to desensitize when training a llama.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Why is brushing considered to be such a good way to desensitize your llama? _____

List two important things a trainer can do while working with a llama, when teaching the llama to accept a halter.

1. _____
2. _____

Why would it be dangerous to have a llama's halter resting below the nose bone?

Why must a llama trainer continually check a llama's halter fit? _____

What is a slipknot and why should it be used? _____

How long might it take to desensitize a llama? _____

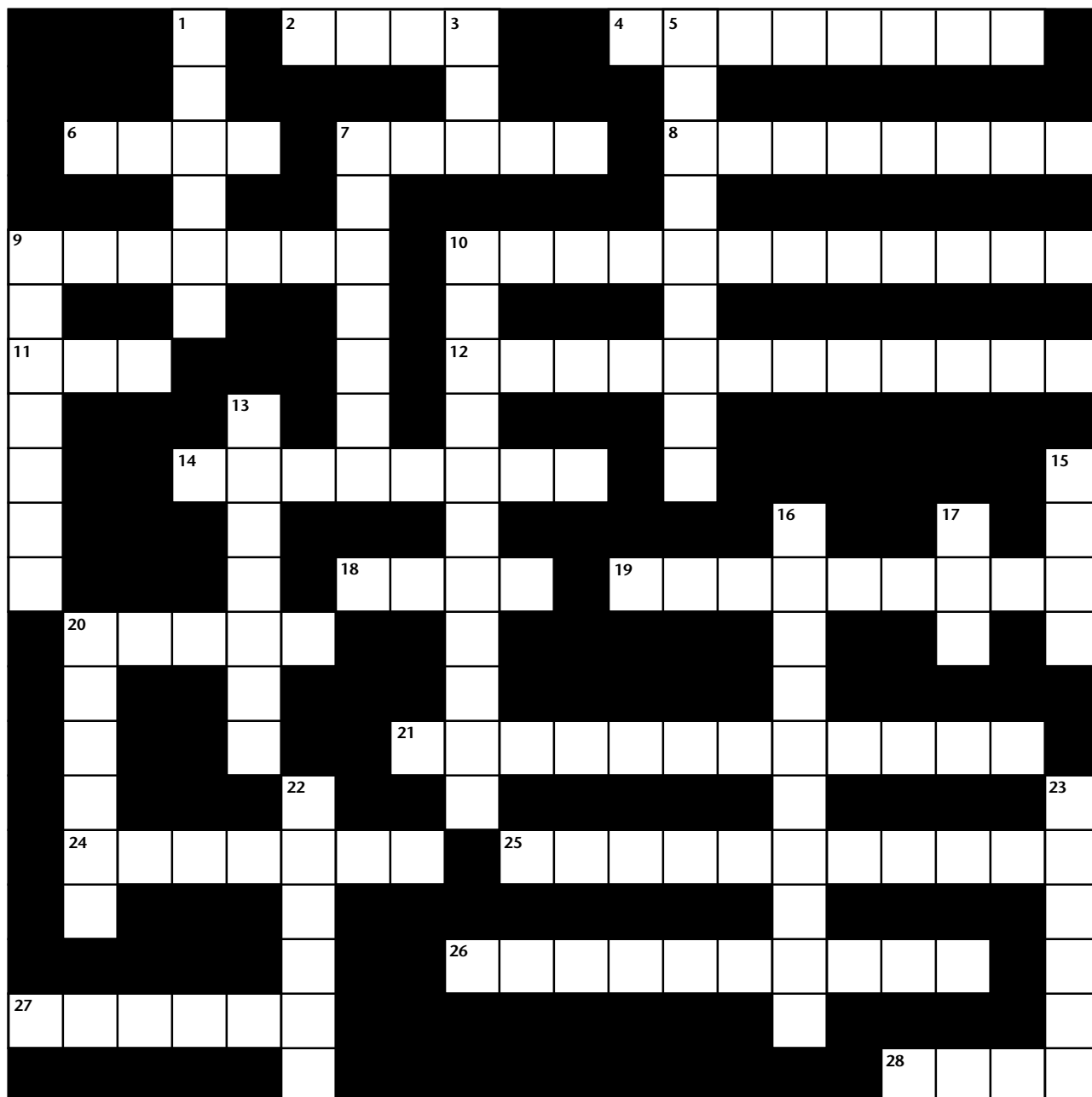
List three times it might be helpful for a llama to kush for its trainer?

1. _____
2. _____
3. _____

C. PACKING

How old should a llama be before a trainer should expect him to pack 30 pounds?

INTERMEDIATE LEVEL CROSSWORD PUZZLE



CLUES: INTERMEDIATE LEVEL CROSSWORD PUZZLE

ACROSS CLUES

2. The way a llama says, "Bug-Off!"
4. Animals that chew cud.
6. The word that describes what a llama does when it carries a load.
7. A word that describes animals that do not show signs if they are not feeling well.
8. Any animal that has been developed to help man.
9. The camelid from which llamas originated.
10. A person you should know and who you can call if a llama is sick.
11. The _____ of a llama tears off the grass with the lower teeth and is called prehensile.
12. Looking at a llama: the way a llama is put together.
14. Kind of teeth that should be removed from a male llama.
18. Approximately how long is a llama's gestation?
19. Stiffer, more coarse part of llama wool.
20. Mountain region where llamas originate.
21. Continent from which llamas originate.
24. Llamas are members of this family.
25. Word that describes helping a llama to be comfortable with being touched on legs, head, etc.
26. Dry spot on lower leg that is non-functioning.
27. On the back legs, a joint area that gets dirty easily and is often worn.
28. A boy llama.

DOWN CLUES

1. Smaller South American camelid.
3. Number of toes on each foot.
5. Part of wool that is fine and primarily used for spinning.
7. A llama has three compartments in this.
9. Name of a male llama that has been neutered.
10. Shots given to animals to prevent sickness.
13. Base of neck near the back.
15. Name the country in South America where llamas have been domesticated.
16. Kind of upper lip that a llama has.
17. The bottom of a llama's foot.
20. Animal from the camelid family that is short and used primarily for wool.
22. The kind of foot that has two toes.
23. A girl llama.

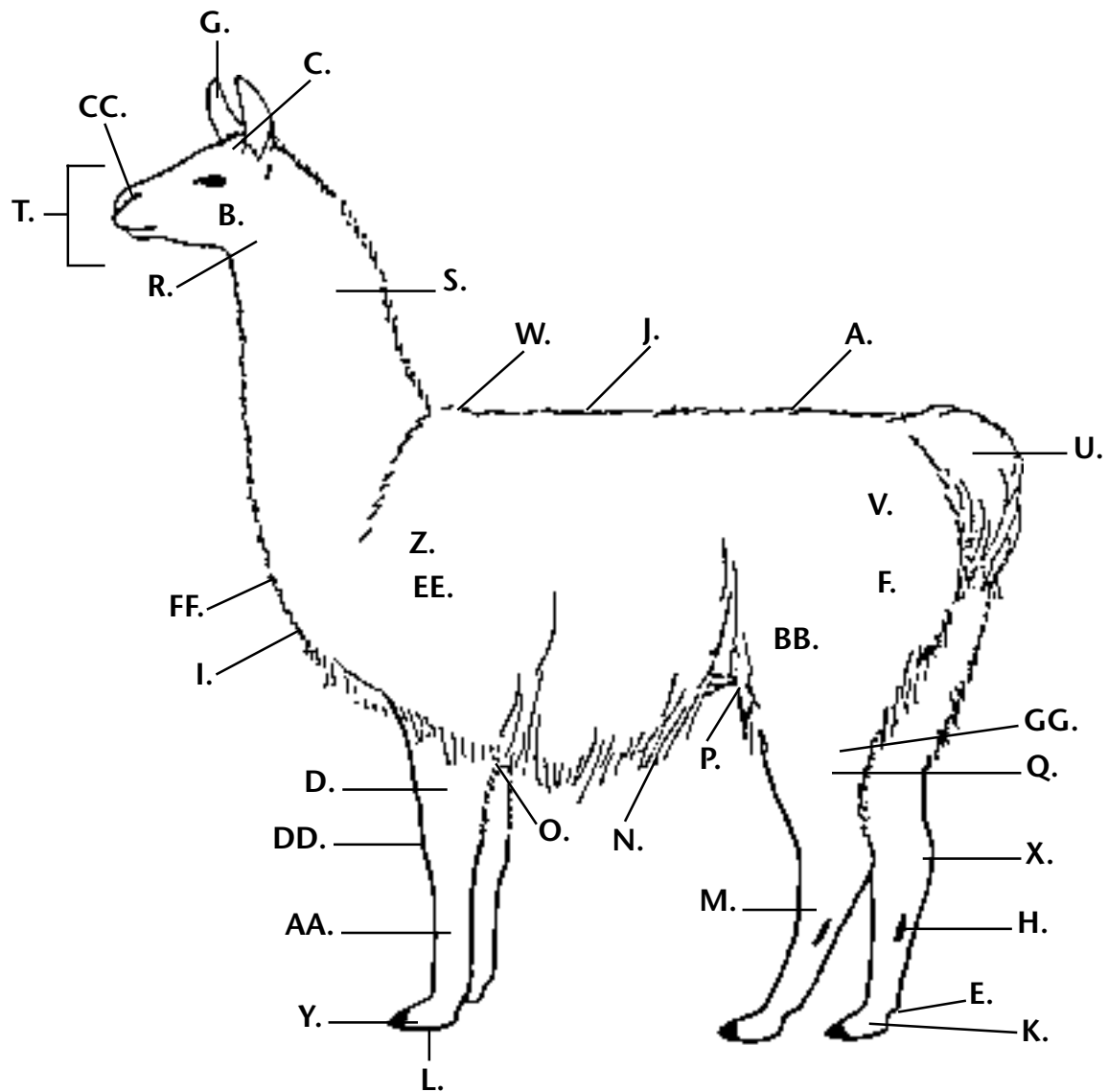
WORD LIST: INTERMEDIATE LEVEL CROSSWORD PUZZLE

ALPACA
ANDES
CAMELID
CLOVEN
CONFORMATION
DESENSITIZE
DOMESTIC
FEMALE
FIGHTING
GELDING
GUANACO

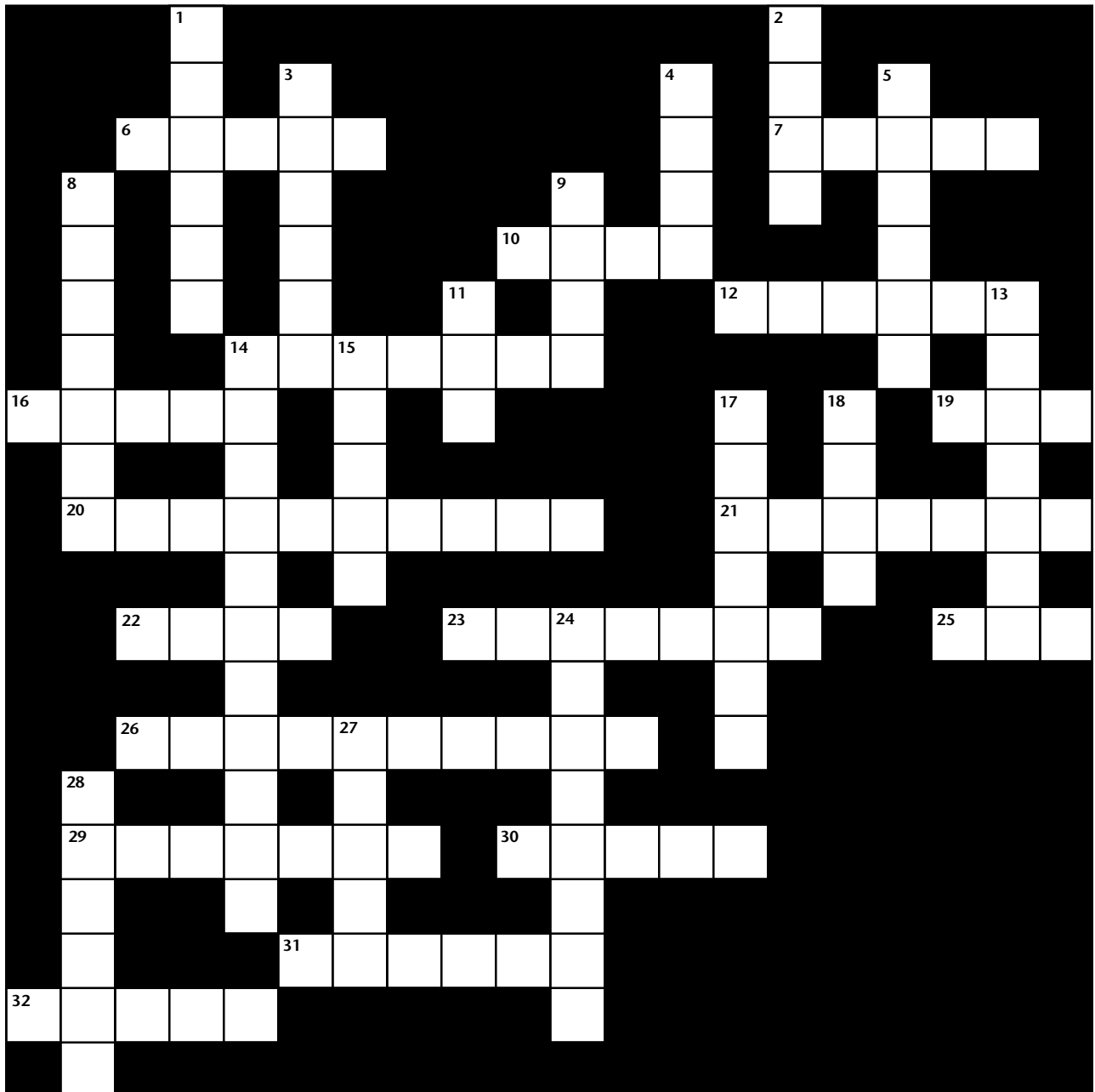
GUARD HAIR
LIP
MALE
PACK
PAD
PERU
PREHENSILE
RUMINANT
SCENT GLAND
SOUTH AMERICA
SPIT

STOIC
STIFLE
STOMACH
TWO
UNDERCOAT
VACCINATION
VETERINARIAN
VICUNA
WITHERS
YEAR

INTERMEDIATE LEVEL BODY PARTS DIAGRAM CROSSWORD PUZZLE



INTERMEDIATE LEVEL BODY PARTS DIAGRAM CROSSWORD PUZZLE



CLUES: BODY PARTS DIAGRAM CROSSWORD PUZZLE

ACROSS	CLUES	DOWN	CLUES
6.	A	1.	R
7.	B	2.	S
10.	C	3.	T
12.	D	4.	U
14.	E	5.	V
16.	F	8.	W
19.	G	9.	X
20.	H	11.	Y
21.	I	13.	Z
22.	J	14.	AA
23.	K	15.	BB
25.	L	17.	CC
26.	M	18.	DD
29.	N	24.	EE
30.	O	27.	FF
31.	P	28.	GG
32.	Q		

WORD LIST: BODY PARTS DIAGRAM CROSSWORD PUZZLE

ABDOMEN
 BACK
 CHEEK
 CHEST
 CROUP
 EAR
 ELBOW
 FETLOCK
 FEMUR
 FRONT CANNON
 GASKIN

HIND CANNON
 HOCK
 KNEE
 MUZZLE
 NECK
 NOSTRIL
 PASTERN
 PAD
 PELVIS
 POLL
 RADIUS

SCENT GLAND
 SCAPULA
 SHOULDER
 STERNUM
 STIFLE
 TAIL
 THROAT
 THIGH
 TIBIA
 TOE
 WITHERS

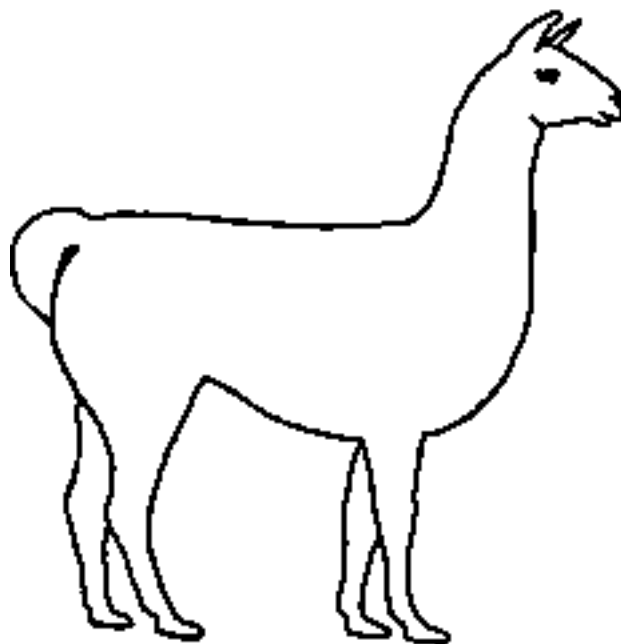
My Llama Photo Page

(Give activities, dates, and captions. Add more sheets as needed)

This project was completed on _____
date member signature
club leader

L L A M A

4-H ADVANCED PROJECT BOOK



LLAMA ADVANCED PROJECT

OUTLINE FOR PROJECT LEVEL

- I. History and Background
- II. The Llama and His Behavior
- III. Types
- IV. Conformation and Correctness
- V. Temperament
- VI. Purchasing a Llama
- VII. Shelter
- VIII. Diet
- IX. General Health and Maintenance
 - A. Vaccinations
 - B. Parasites
 - C. Teeth and Feet
- X. Llama Training
 - A. Equipment
 - B. Procedure
 - C. Packing

Youth Llama Project Personal Journal

ADVANCED LEVEL

I. HISTORY & BACKGROUND

List four members of the South American camelid family and explain in detail the differences in each.

1. _____

2. _____

3. _____

4. _____

List three countries in South America that llamas come from.

1. _____

2. _____

3. _____

What is the genus for the South American camelids? _____

Why are llamas and alpacas classified in the camelid family? _____

Describe the South American climate in which llamas and alpacas live. _____

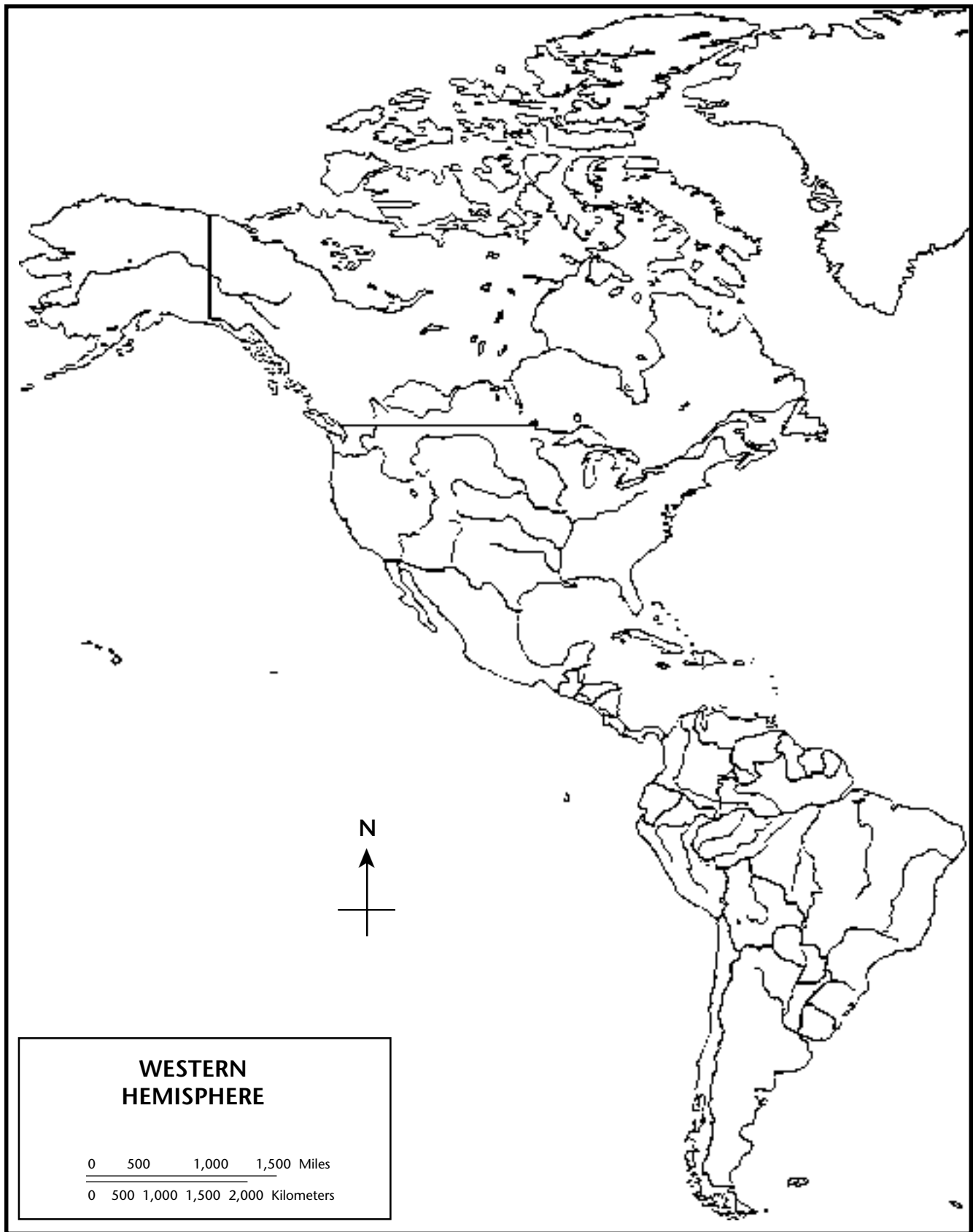
Look at the map of the Western Hemisphere on page 52 and identify the following information about where llamas and alpacas originate.

A. The continent

B. The countries

C. The mountain ranges in those countries

Locate where you live. Color the entire map.



II. THE LLAMA & HIS BEHAVIOR

An average horse weighs 1500 pounds. How many average size llamas would it take to equal a horse's weight? _____

What is the size comparison of llamas and alpacas? _____

List three other cloven-footed animals.

1. _____

2. _____

3. _____

Why are llamas less destructive to terrain than horses? _____

Why is a llama's upper lip called prehensile? _____

What is the term for an animal with many compartments in its stomach? _____

List four different ruminants including one which occurs in the wild throughout the United States.

1. _____

2. _____

3. _____

4. _____

A llama may live as long as _____ years.

A llama may have a cria for _____

Define the function of the following parts of a llama:

Lungs: _____

Heart: _____

Liver: _____

Kidneys: _____

Cud/Stomach: _____

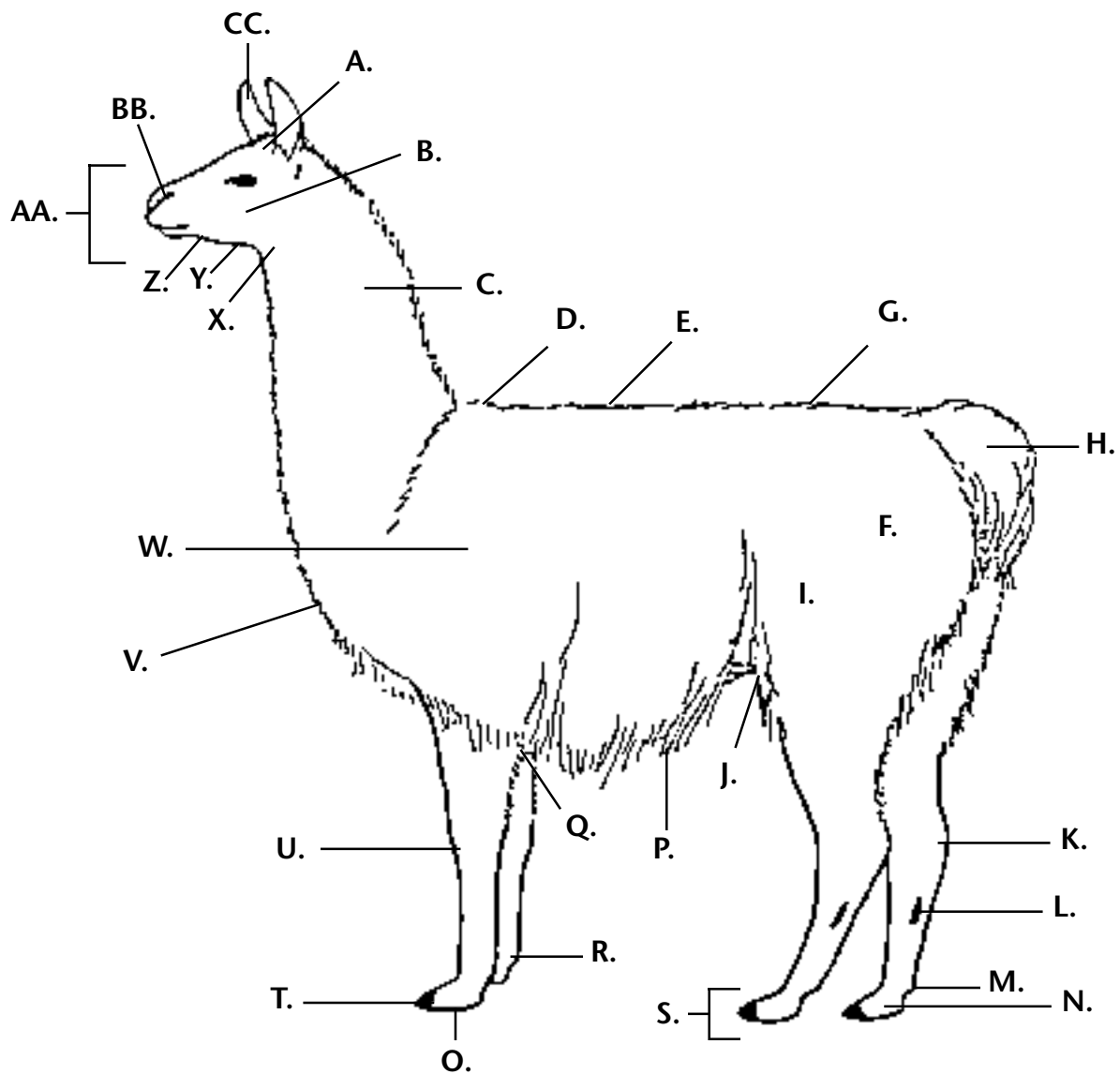
Identify the following body parts on the external llama diagram.

_____ Pastern	_____ Abdomen (Belly)
_____ Poll	_____ Back
_____ Tail	_____ Knee (Carpus)
_____ Withers	_____ Cheek
_____ Fetlock	_____ Elbow
_____ Neck	_____ Toenail
_____ Chestnut (Scent gland)	_____ Ear
_____ Croup	_____ Fetlock
_____ Nostril	_____ Pad
_____ Hock	_____ Stifle
_____ Chin	_____ Jaw
_____ Throat	_____ Hip
_____ Chest	_____ Shoulder
_____ Thigh	_____ Foot
_____ Muzzle	

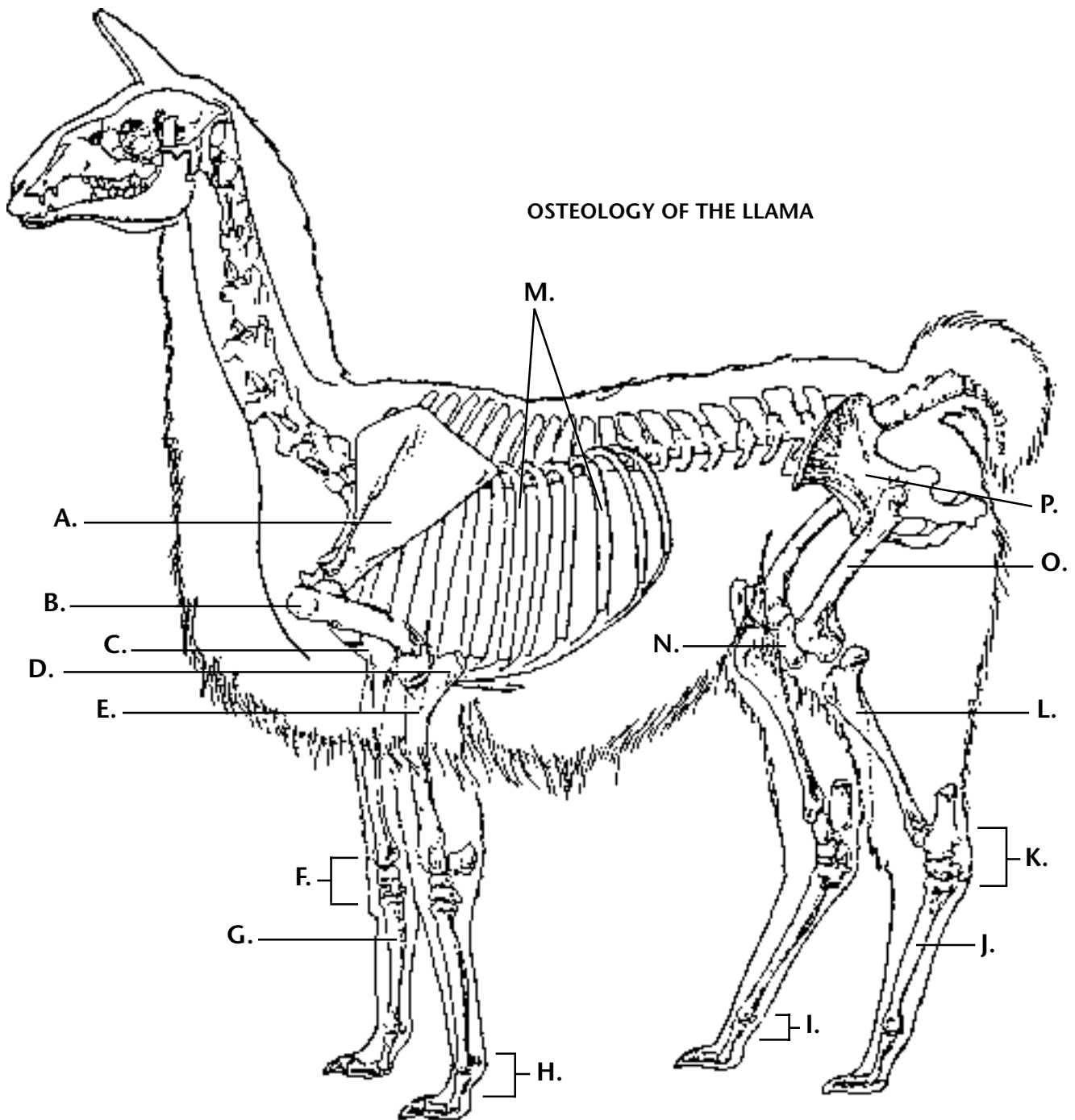
Identify the following bones on the internal llama diagram.

_____ Fetlock	_____ Scapula	_____ Femur
_____ Ribs	_____ Hock	_____ Hind Cannon
_____ Humerus	_____ Tibia	_____ Knee
_____ Pelvis	_____ Stifle	_____ Front Cannon
_____ Radius	_____ Sternum	_____ Elbow
_____ Fetlock		

EXTERNAL LLAMA DIAGRAM



INTERNAL LLAMA DIAGRAM



List two other types of animals that naturally live in herds.

1. _____
2. _____

List two reasons why a llama might spit.

1. _____
2. _____

Explain the process that enables a llama to spit. _____

III. TYPES

What is the purpose of guard hair? _____

What is the purpose of a llama's finer undercoat? _____

If you plan to make a sweater, would you prefer llama wool or alpaca wool? Why? _____

IV. CONFORMATION & CORRECTNESS

List three conformation points to observe in a correct llama.

1. _____
2. _____
3. _____

V. TEMPERAMENT

Explain Aberrant Male Behavior, why it happens and signs of an animal with it. _____

VI. PURCHASING A LLAMA

List three organizations from which someone could gain information concerning llamas.

1. _____
2. _____
3. _____

VII. SHELTER

What is the minimum height of a fence required to contain a llama? _____

VIII. DIET

A llama consumes _____ % of it's total body weight of food per day.

How much feed does your llama require per day? _____

State a mineral that should be provided for all llamas at all times. _____

IX. GENERAL HEALTH & MAINTENANCE

What is the best way to detect if a llama is or is not healthy? _____

Define the word "stoic." _____

How might "stoic" apply to a llama? _____

List four types of preventative medicine a llama owner should use to help keep a llama healthy.

1. _____

2. _____

3. _____

4. _____

A. VACCINATIONS

What are three things llamas and alpacas need to be vaccinated for?

1. _____

2. _____

3. _____

B. PARASITES

Describe how two different farms in your area control parasites.

1. _____

2. _____

What deadly parasite might a white tail deer pass on to llamas? _____

List two reasons why a llama could lose wool in patches.

1. _____

2. _____

C. *TEETH & FEET*

How can a llama owner tell if a llama needs its toenails trimmed? _____

How old are llamas when they grow their fighting teeth? _____

How many fighting teeth do male llamas grow and where are they? _____

D. *HEAT STRESS & COLD WEATHER*

What is the normal temperature of an adult llama and how do you check it? _____

How does a llama trainer prevent heat stress? _____

List three signs of heat stress.

1. _____

2. _____

3. _____

List three ways to help a llama experiencing heat stress.

1. _____

2. _____

3. _____

What should be done to prevent problems when changing a llama's diet? _____

List six ways to decrease stress on a llama while showing the animal.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

X. **LLAMA TRAINING**

In your opinion what are the two most important places to desensitize and why?

1. _____

2. _____

List four steps in desensitizing the back legs.

1. _____
2. _____
3. _____
4. _____

A good llama trainer can anticipate a llama's actions by first _____ and _____ the llama's movements.

If working with a llama who spits or kicks, explain how you would try to change this behavior.

A. EQUIPMENT

Why is it important to put a halter on and off continually when training a llama? _____

List three things a llama trainer might do to help an untrained llama follow on a lead rope.

1. _____
2. _____
3. _____

B. PROCEDURE

List three ways to gain a llama's trust.

1. _____
2. _____
3. _____

What is the tug and release technique? _____

List the two most important things to remember when desensitizing a llama.

1. _____
2. _____

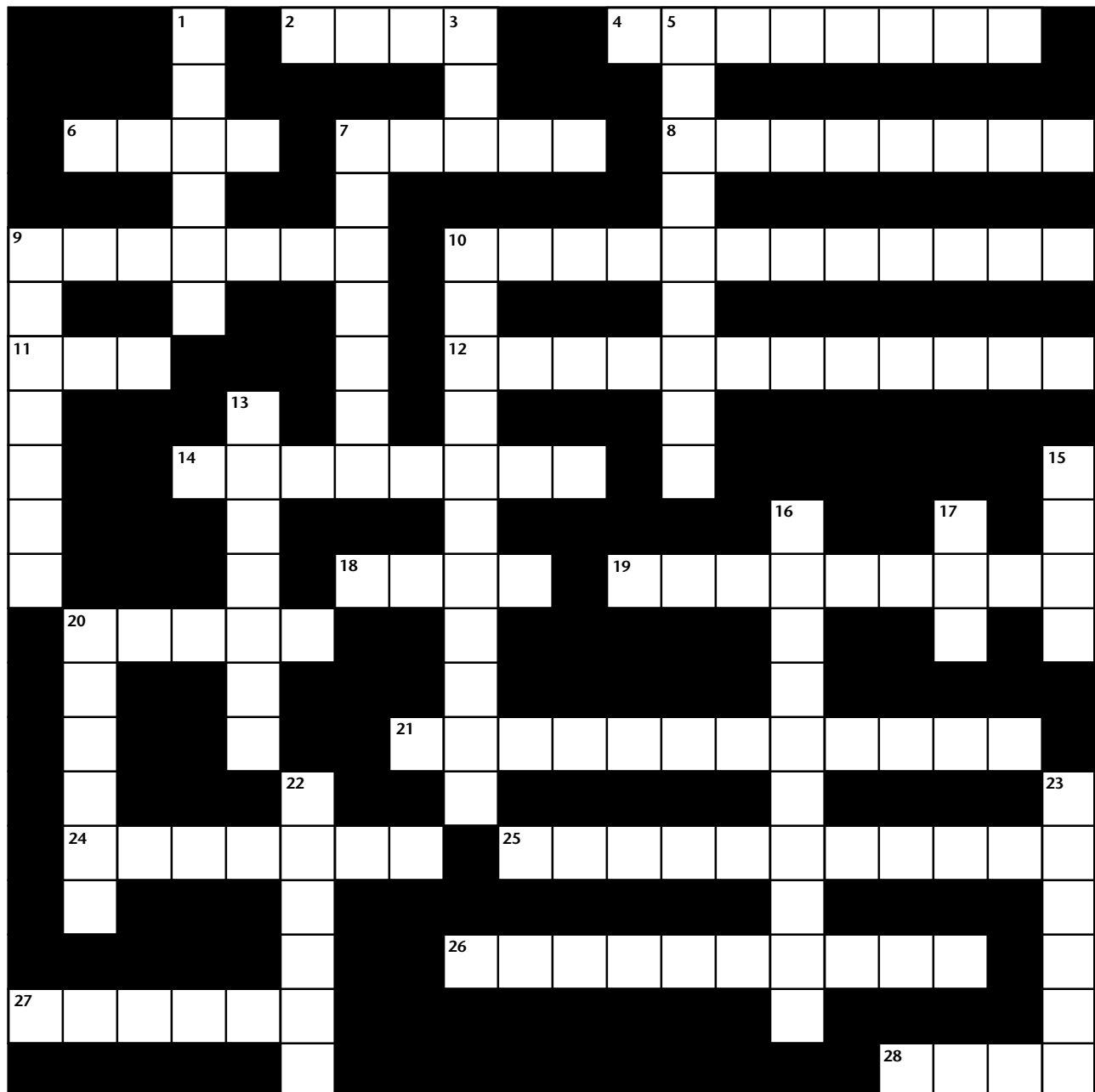
C. PACKING

How does a trainer know how much weight a llama can pack? _____

What is a good first step when getting ready to train your llama to pack? _____

How can a trainer help a llama keep it's balance while packing? _____

ADVANCED LEVEL CROSSWORD PUZZLE



CLUES: ADVANCED LEVEL CROSSWORD PUZZLE

ACROSS CLUES

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4. Animals that chew cud.
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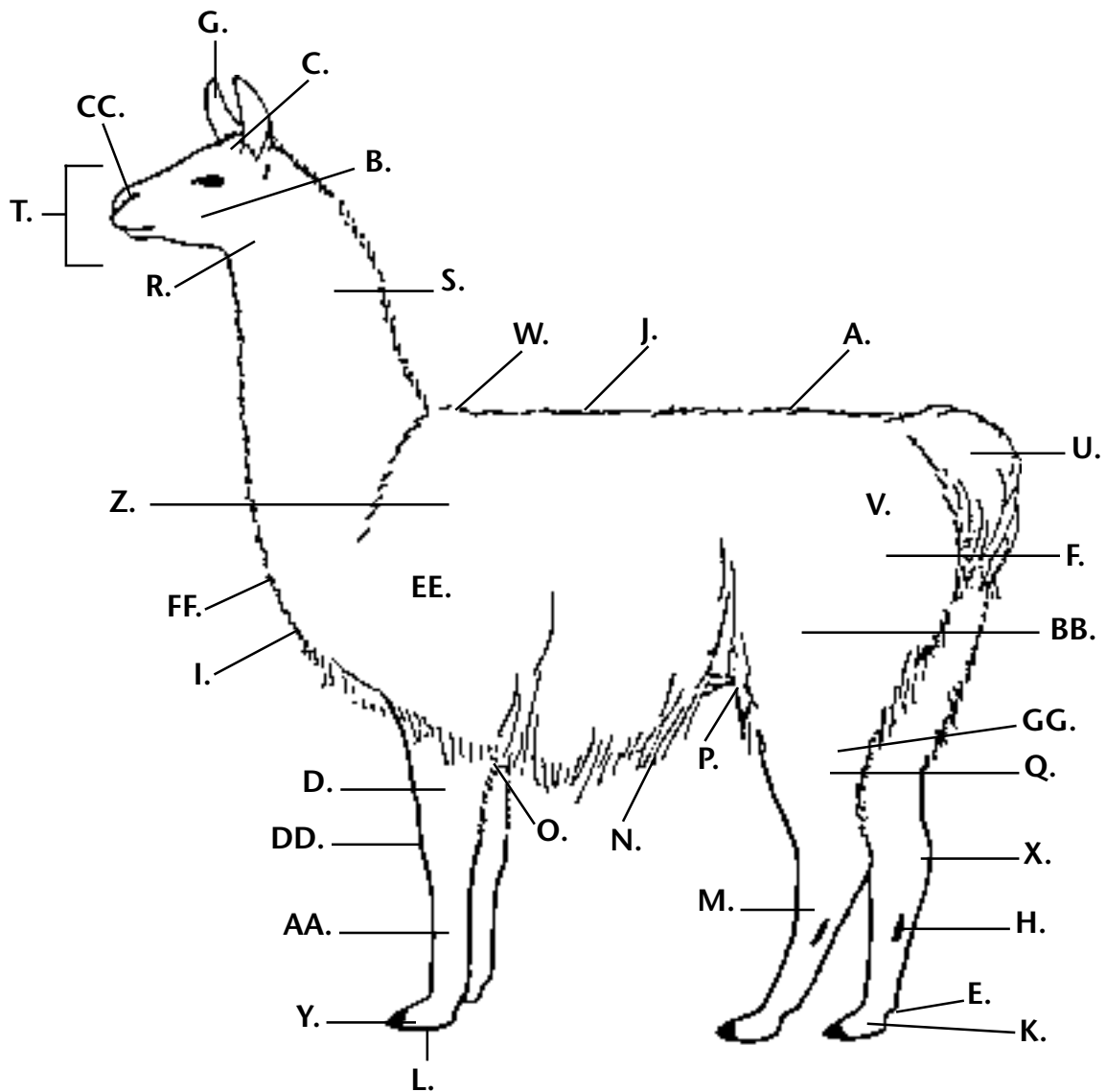
WORD LIST: ADVANCED LEVEL CROSSWORD PUZZLE

ALPACA
ANDES
CAMELID
CLOVEN
CONFORMATION
DESENSITIZE
DOMESTIC
FEMALE
FIGHTING
GELDING
GUANACO

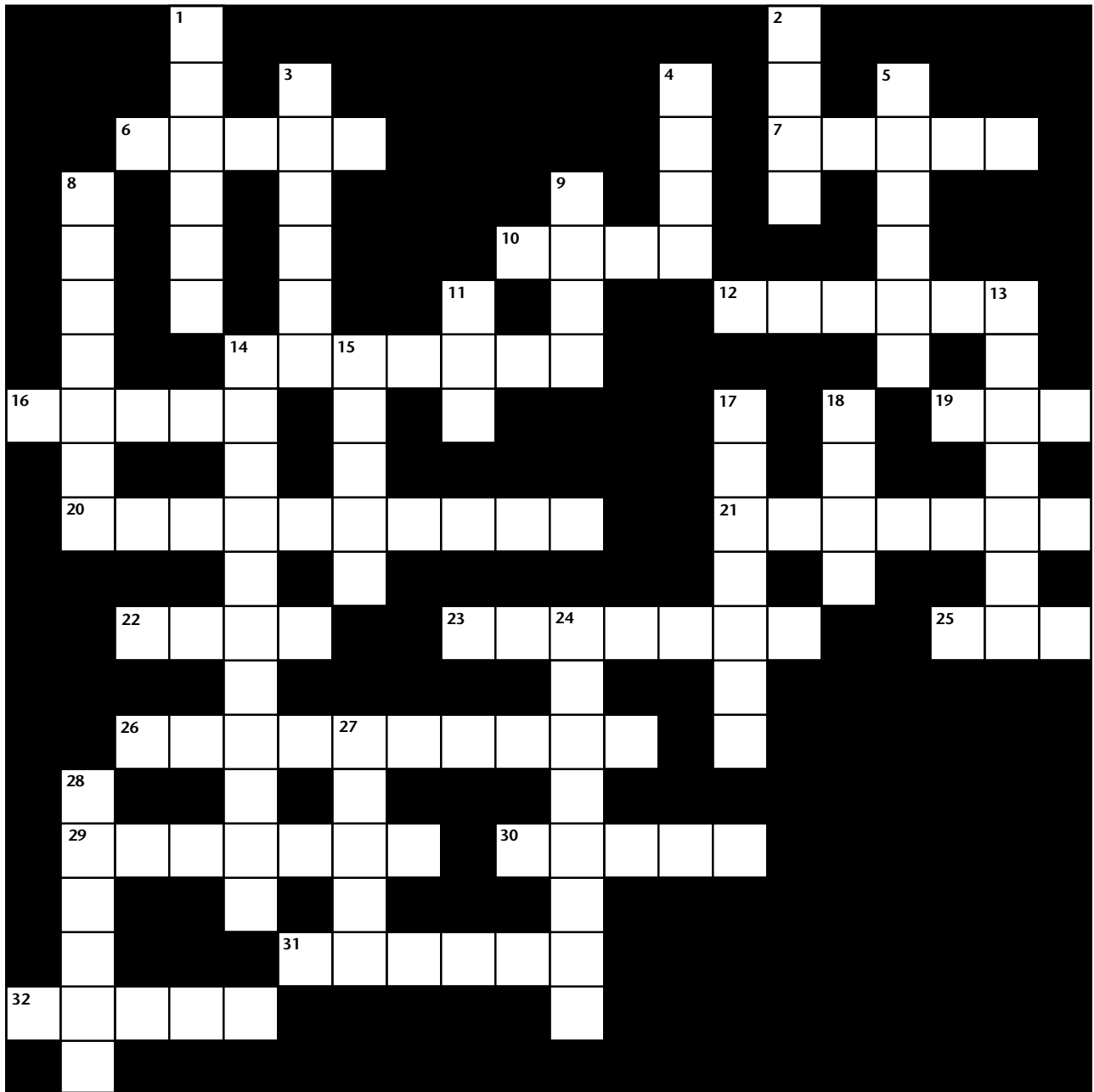
GUARD HAIR
LIP
MALE
PACK
PAD
PERU
PREHENSILE
RUMINANT
SCENT GLAND
SOUTH AMERICA
SPIT

STOIC
STIFLE
STOMACH
TWO
UNDERCOAT
VACCINATION
VETERINARIAN
VICUNA
WITHERS
YEAR

ADVANCED LEVEL EXTERNAL LLAMA DIAGRAM CROSSWORD PUZZLE



ADVANCED LEVEL EXTERNAL LLAMA DIAGRAM CROSSWORD PUZZLE



CLUES: EXTERNAL LLAMA DIAGRAM CROSSWORD PUZZLE

ACROSS	CLUES	DOWN	CLUES
6.	A	1.	R
7.	B	2.	S
10.	C	3.	T
12.	D	4.	U
14.	E	5.	V
16.	F	8.	W
19.	G	9.	X
20.	H	11.	Y
21.	I	13.	Z
22.	J	14.	AA
23.	K	15.	BB
25.	L	17.	CC
26.	M	18.	DD
29.	N	24.	EE
30.	O	27.	FF
31.	P	28.	GG
32.	Q		

WORD LIST: EXTERNAL LLAMA DIAGRAM CROSSWORD PUZZLE

ABDOMEN
 BACK
 CHEEK
 CHEST
 CROUP
 EAR
 ELBOW
 FETLOCK
 FEMUR
 FRONT CANNON
 GASKIN

HIND CANNON
 HOCK
 KNEE
 MUZZLE
 NECK
 NOSTRIL
 PASTERN
 PAD
 PELVIS
 POLL
 RADIUS

SCENT GLAND
 SCAPULA
 SHOULDER
 STERNUM
 STIFLE
 TAIL
 THROAT
 THIGH
 TIBIA
 TOE
 WITHERS

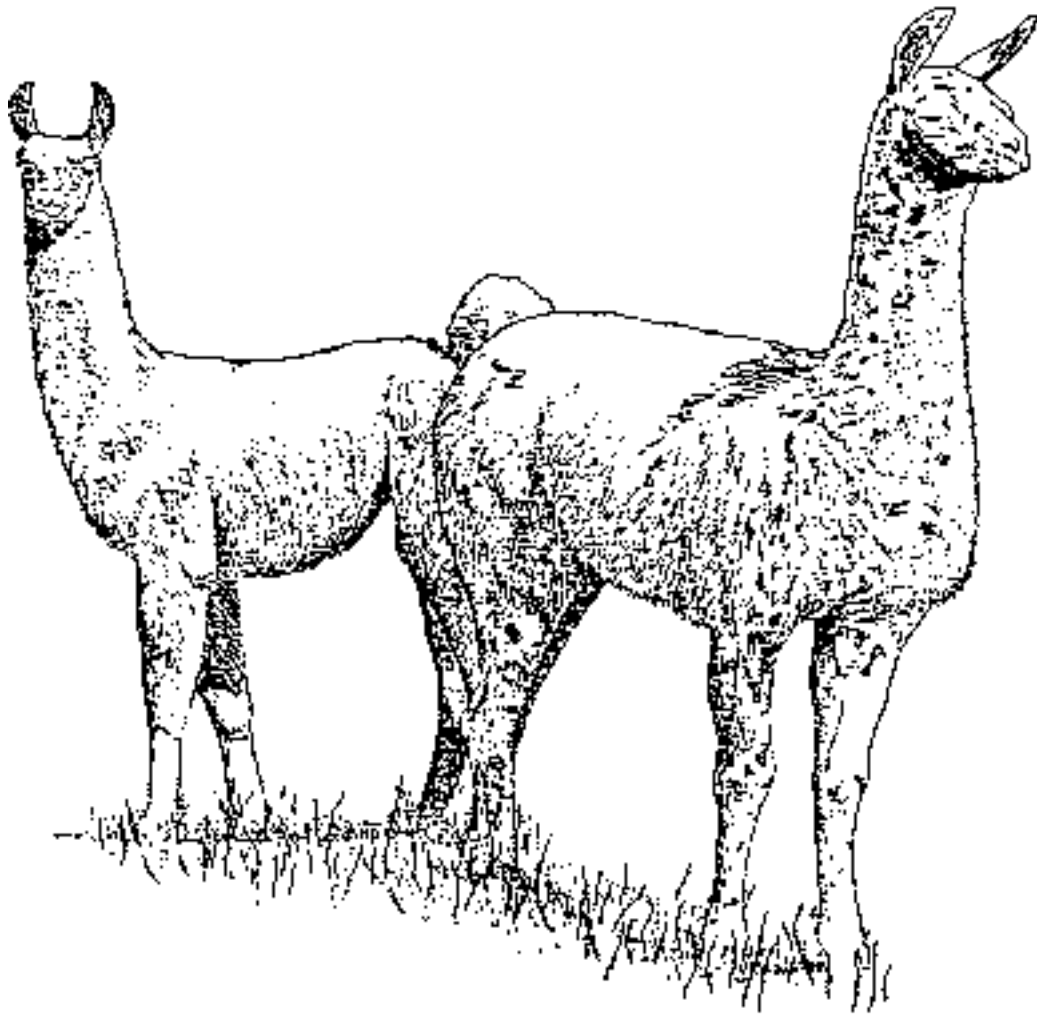
My Llama Photo Page

(Give activities, dates, and captions. Add more sheets as needed)

This project was completed on _____
date member signature
club leader

4-H LEADERS MANUAL

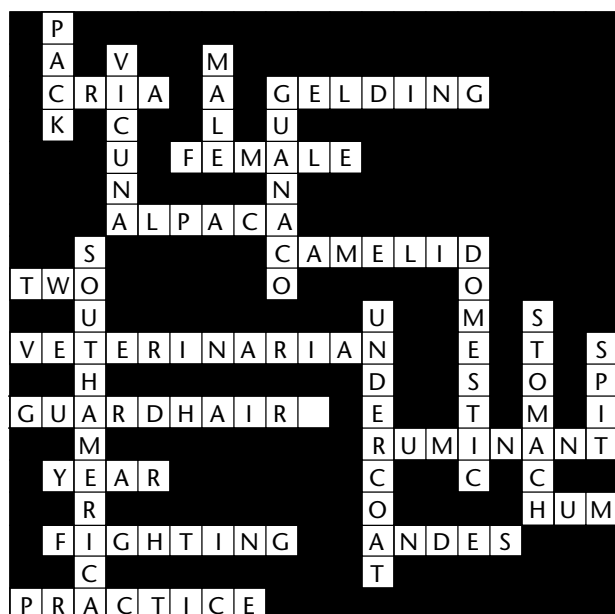
ANSWER GUIDE



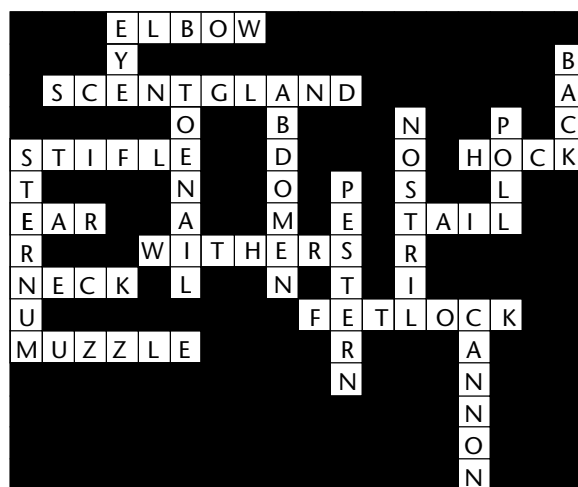
MINI 4-H PROJECT ANSWER GUIDE

1. Camelid
2. Packing, pets, breeding stock, wool production, therapy
3. Two
4. Three
5. 15–20 years
6. 350 days
7. cria
8. 20–35 pounds
9. 60–77 inches
10. A llama spits to determine pecking order at meal time.
A female llama spits to scare off a male if she is pregnant
A llama spits to say, "Bug Off!"
11. M D
L C
B K
A J
E I
F G
H

ANSWERS: MINI LEVEL CROSSWORD PUZZLE



**ANSWERS: MINI LEVEL DIAGRAM
CROSSWORD PUZZLE**



BEGINNER LLAMA PROJECT ANSWER GUIDE

I. HISTORY & BACKGROUND

1. Llama
2. Alpaca
3. Guanaco
4. Vicuna

Wild: An animal in its natural environment

Domestic: An animal developed to help man

Uses:

1. Work animals to carry loads
2. Wool producers

II. THE LLAMA AND HIS BEHAVIOR

An average llama is 36–47 inches at the shoulder.

A llama has *no top front teeth*.

A llama has *three* compartments in its stomach.

They should always have *other animals, preferably camelids* with them.

A llama spits *to communicate among other llamas and to say, "Bug off."*

BEGINNER LEVEL DIAGRAM:

- I. Pastern
- J. Abdomen (belly)
- A. Poll
- D. Back
- E. Tail
- L. Knee
- C. Withers
- H. Fetlock
- F. Hock
- K. Toenail
- B. Neck
- G. Chestnut (scent gland)

III. TYPES

Colors:

1. White
2. Black
3. Brown
4. Tan
5. Other combinations of these.

Grouped according to their *wool*.

IV. CONFORMATION & CORRECTNESS

The way a llama is put together is called *conformation*.

V. TEMPERAMENT

Llamas have their own *personality*.

VI. PURCHASING A LLAMA

Llamas are good companions because they are alert and *intelligent*.

VII. SHELTER

Llamas need some sort of *shelter*, a basic three sided structure will usually be adequate.

VIII. DIET

1. Water
2. Food
3. Minerals

IX. GENERAL HEALTH & MAINTENANCE

A llama owner should provide a mineral supplement for the llamas.

A. VACCINATIONS

Vaccinate llamas to *prevent them from getting parasites*. This can cause negative affects on the llama's system.

B. PARASITES

Internal parasites

C. FEET

1. Toenails
2. Pads

D. HEAT STRESS & COLD WEATHER

Normal temperature of an adult llama is 99°–101.8°F.

Extreme heat or extreme cold.

DO NOT drastically change diet because a sudden change in ruminant's diet can cause serious problems.

X. LLAMA TRAINING

Decrease stress:

Talk to llamas gently

Practice often

Anticipate llama's actions

Hold firmly

Rub or stroke a llama

Interpret llama's body language

Be consistent

A llama will relax upon hearing a calm, reassuring voice.

A. EQUIPMENT

It is *never acceptable* to wrap a lead rope around your hand.

The noseband should *lie on the bone and not on the fleshy part* of a llama's nose.

Hold the lead rope *two–three feet* from the halter.

(The excess should be lapped over in the free hand—not wrapped.)

B. PROCEDURE

A trainer should *move slowly* to help a llama trust him.

To gain a llama's trust:

1. Be consistent
2. Repeat the process
3. Talk softly
4. Allow the llama to become familiar with you

To help the llama accept a brush or halter:

1. Move slowly
2. Be patient

Use a short tug on the lead rope to encourage a llama.

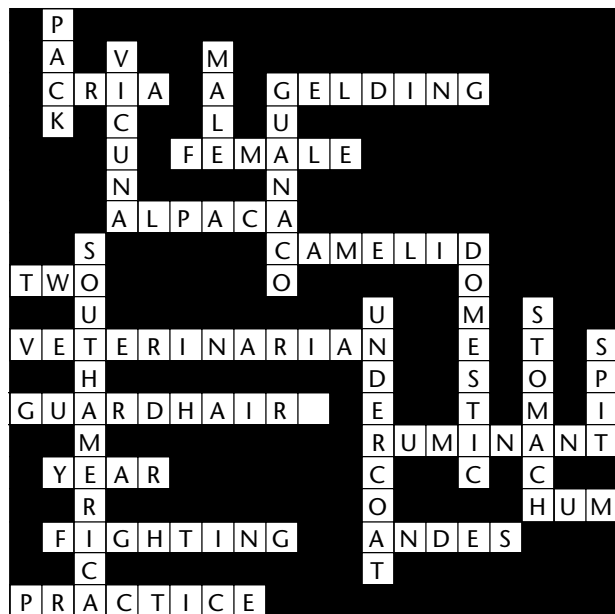
Slowly and steadily, touch certain areas on a llama's body.

Kush

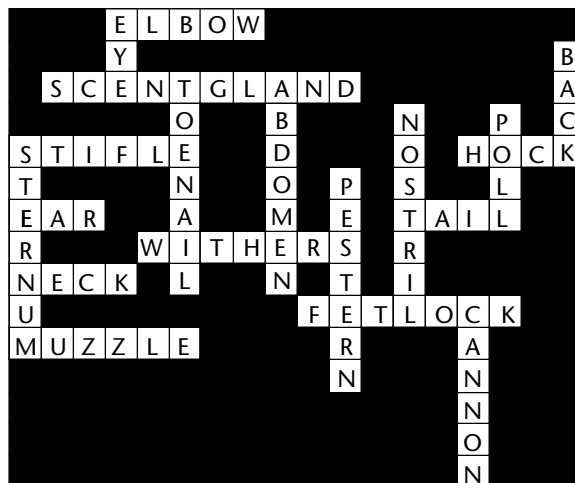
C. PACKING

A llama will enjoy packing more if you let him smell the pack first. Start with something very light and quiet such as a pillow case or large sweatshirt. Talk to the llama and encourage him.

ANSWERS: BEGINNER LEVEL CROSSWORD PUZZLE



ANSWERS: BEGINNER LEVEL DIAGRAM CROSSWORD PUZZLE



INTERMEDIATE LEVEL ANSWER GUIDE

I. HISTORY & BACKGROUND

- | | |
|-----------|------------|
| 1. Vicuna | 3. Guanaco |
| 2. Alpaca | 4. Llama |

Reasons for popularity:

- | | |
|------------------|-----------------------|
| 1. Pets | 5. Companions |
| 2. Pack animals | 6. Wool producers |
| 3. Sheep guards | 7. Cart pullers, etc. |
| 4. Entertainment | |

Crias

Domestic: *Llamas and alpacas*

Wild: *Guanaco and vicuna*

People from Peru

II. THE LLAMA & HIS BEHAVIOR

An adult llama weighs between *250 and 450 pounds*.

Llamas are called cloven footed *because they have two toenails*.

Because llamas *do not have top front teeth*.

Ruminants:

- | | |
|-----------|----------|
| 1. Cows | 3. Sheep |
| 2. Camels | 4. Goats |

The best companion for a llama or alpaca is *another llama or alpaca*.

No. it smells unpleasant but it does not hurt.

III. TYPES

1. Guard
2. Down

Spinning and weaving:	Either
Packing:	Short
Companion:	Either

Basic types of llamas;

1. Short-woolled
2. Long-woolled

INTERMEDIATE LEVEL DIAGRAM:

- | | | |
|-----------|--------------------|---------------------------|
| O. Elbow | L. Pad | P. Fetlock |
| A. Poll | K. Pastern | Q. Toenail |
| B. Cheek | J. Fetlock | I. Chestnut (scent gland) |
| U. Ear | H. Hock | R. Knee |
| M. Stifle | F. Croup | D. Withers |
| E. Back | N. Abdomen (belly) | S. Sternum |
| G. Tail | T. Nostril | C. Neck |

IV. CONFORMATION & CORRECTNESS

If a llama is correct it has good *conformation*.

V. TEMPERAMENT

Because the llama *might bond with people*.

VI. PURCHASING A LLAMA

Consider:

1. Good bone structure
2. Conformation
3. Temperament

VII. SHELTER

Yes. A llama needs shelter because it needs to be protected from rain, wind, and sun.

VIII. DIET

A llama owner should provide supplemental feeding during the *winter* because of the lack of actively growing pasture.

IX. GENERAL HEALTH MAINTENANCE

Preventative medicine:

1. Vaccinate llamas to prevent parasites.
2. Watch llamas to recognize odd or unusual behavior.

A. VACCINATIONS

1. Worms
2. Tetanus

B. PARASITES

Ways internal parasites affect llamas:

1. Lose weight
2. Digestive problems
3. Get sick more easily

Two types of external parasites:

1. Lice
2. Mange

C. TEETH & FEET

A llama is more likely to need its toenails trimmed in the *spring* because it is living on soft grassland.

To prove *male dominance* (*usually in males 2–3 years old*).

D. HEAT STRESS & COLD WEATHER

Temperature of an adult llama: 99° – 101.8° F; *Cria* : 100° – 102° F.

Signs of heat stress:

1. Extreme laziness
2. Open-mouth panting
3. Loss of coordination

A change in diet causes serious problems such as *diarrhea due to shock to the system*.

X. TRAINING

Ways to decrease stress:

1. Talk softly
2. Be consistent
3. Hold firm
4. Interpret llama's body language
5. Practice the activities often
6. Stroke the animal to comfort
7. Anticipate llama's action

Ways to relax a llama or alpaca when training:

1. Go SLOWLY
2. Try not to corner the llama

A. EQUIPMENT

You could be dragged or injured if the llama should become excited or scared.

To get better, *PRACTICE!!* That will give you more experience.

Two styles of halters and their differences:

1. X - style gives more movement and comfort if worn for extended period of time.
2. Standard style gives the handler more control when training.

The llama *could jerk and get loose.*

B. PROCEDURE

15 minutes at a time (even several times a day).

Six places to desensitize a llama:

1. Head
2. Legs
3. Belly
4. Feet
5. Ears
6. Tail
7. Mouth

Teaches them *to be touched all over without being afraid.*

To teach a llama to accept halter:

1. Move slowly
2. Be patient

It could shut off the airflow through the nose because of the soft cartilage.

Llamas grow fast. If a halter is too tight it can cut into the nose.

A slipknot is a knot that *can be released quickly in case the llama gets distressed* in any way.

Some llamas seem to be more receptive than others and training sessions may *vary*. Be patient and move slowly.

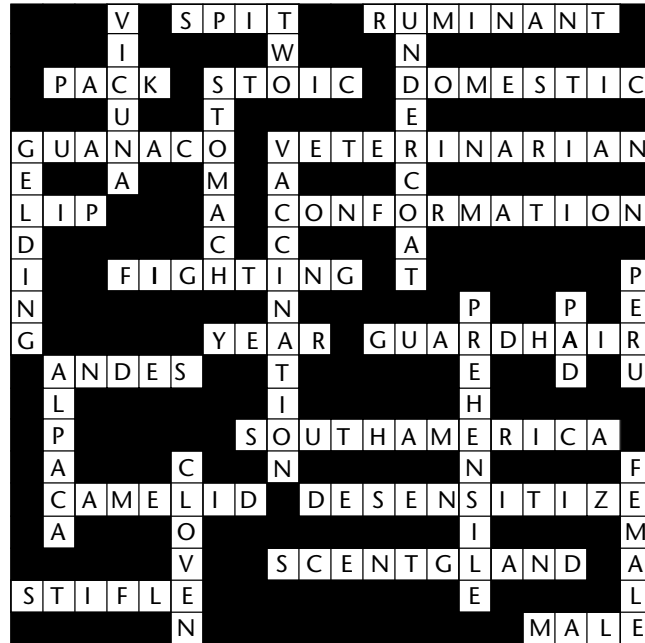
Times it might be helpful for the llama to kush:

1. To do vet work
2. To pack
3. To trailer
4. For emergencies

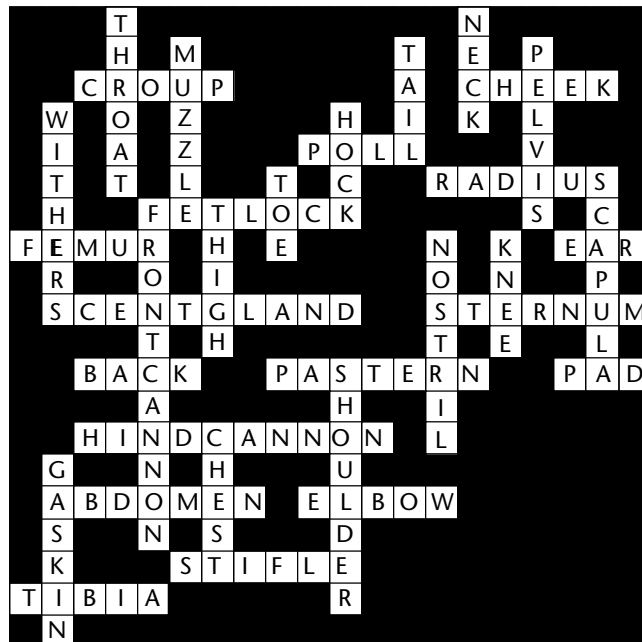
C. PACKING

To pack 30 pounds, a llama should be *two years old*.

ANSWERS: INTERMEDIATE LEVEL CROSSWORD PUZZLE



ANSWERS: INTERMEDIATE LEVEL BODY PARTS DIAGRAM CROSSWORD PUZZLE



ADVANCED LEVEL ANSWER GUIDE

I. HISTORY & BACKGROUND

1. Llama Largest, domesticated
2. Alpaca Smaller, primarily used for wool production
3. Guanaco Original type markings same on all, wild
4. Vicuna Endangered, smallest, wild

Three countries llama come from:

1. Peru
2. Chile
3. Bolivia

Genus: *Lama Glama*

Llamas and alpacas are classified in the camelid family because *they are both descended from guanacos*.

The climate is tierra fria which means cold at the top of the Andes, tierra templada which means mild on the plateau area of the middle of the Andes, and tierra caliente which means warm on the low lands.

II. THE LLAMA AND HIS BEHAVIOR

Five llamas would equal one average horse in size.

Llamas are tall and slender while alpacas are shorter.

Other cloven-foot animals:

1. Cow
2. Goat
3. Pig

The *pad on the bottom of a llama's foot* is less destructive than a horse's hard hoof.

A llama's lip is called prehensile because *it is structured to seize or grasp grasses when eating*.

An animal with compartments in its stomach: *ruminant*

Other ruminants:

Wild: deer

Domesticated: sheep, cow, and goat

A llama can live *15–20 years*.

A llama can have a *cria until she dies!*

Lungs: Lungs bring oxygen into the body to send it through the system.

Heart: The heart sends blood throughout the entire body to deliver oxygen and nutrition so that the body can function.

Liver: The liver works in the formation of blood, secretes bile, metabolizes carbohydrates, fats, proteins, minerals, and vitamins.

Kidneys: A pair of organs that function to maintain proper water balance, regulate acid base concentration, and excrete wastes as urine.

Cud/Stomach: Food regurgitated from the first stomach to the mouth to be chewed again. The stomach is where food is broken down so that the nutrients can be used by the body.

ANSWERS: ADVANCED LLAMA DIAGRAMS

EXTERNAL:

N.	Pastern	P.	Abdomen (belly)
A.	Poll	E.	Back
H.	Tail	U.	Knee
D.	Withers	B.	Cheek
M.	Fetlock	Q.	Elbow
C.	Neck	T.	Toenail
L.	Chestnut (scent gland)	CC.	Ear
G.	Croup	R.	Fetlock
BB.	Nostril	O.	Pad
K.	Hock	J.	Stifle
Z.	Chin	Y.	Jaw
X.	Throat	F.	Hip
V.	Chest	W.	Shoulder
I.	Thigh	S.	Foot
AA.	Muzzle		

INTERNAL:

H.	Fetlock	L.	Tibia
M.	Ribs	N.	Stifle
B.	Humerus	C.	Sternum
P.	Pelvis	O.	Femur
E.	Radius	J.	Hind Canon
I.	Fetlock	F.	Knee
A.	Scapula	G.	Front Cannon
K.	Hock	D.	Elbow

Herd animals:

1. Elephants
2. Antelope

Why llamas spit:

1. If they are pregnant
2. Males showing dominance
3. If the llama does not like something

Because they are *ruminants*, this process enables them to project stomach contents.

III. TYPES

Guard hair is long, shiny, and coarser than other wool. *Guard hair allows air to circulate and keeps the coat more manageable.*

Undercoat is soft and fine and is *used for spinning.*

To make a sweater, you would *probably choose alpaca wool because it includes no guard hair. Llama wool that is long and well carded would also be a good choice.*

IV. CONFORMATION & CORRECTNESS

Conformation points to look for in a sound and structurally correct llama:

1. Back legs that are straight
2. Front legs that are straight
3. Head held high
4. Neck that is in proportion to the body and legs
5. Ears that are correct, etc.

V. TEMPERAMENT

An animal that has bonded to people can be very dangerous. They become aggressive because they have been bottle fed.

VI. PURCHASING A LLAMA

Organizations: International Llama Association and its 24 affiliated organizations: 303-756-9004; Llama Association of North America: 702-265-3177; and Rocky Mountain Llama & Alpaca Association: 303-241-7921. Also check with your local Extension Office.

VII. SHELTER

Minimum fence height; *four feet*

VIII. DIET

A llama consumes *one to two percent* of its total body weight.

(Calculate how much your llama eats.)

Salt should be provided at all times.

IX. GENERAL HEALTH & MAINTENANCE

Best way to detect if llama is healthy or not: *observation*.

Stoic: Does not show signs if sick or not feeling well. This describes a llama because they usually do not indicate that they are in pain or discomfort.

Types of preventative medicine for a llama:

- | | |
|----------------------------------|-------------------------------|
| 1. Vaccinations | 5. Provide clean, fresh water |
| 2. Cut fighting teeth from males | 6. Trim toenails |
| 3. Provide minerals | 7. Clean pens |
| 4. Provide proper food | |

A. VACCINATIONS

Llamas need to be vaccinated to prevent:

1. Tetanus
2. Worms
3. Clostridium C & D

B. PARASITES

(Local parasite control response.)

Deadly parasite a white tailed deer could pass on: *Meningeal worm*.

A llama could lose wool because of:

1. Shedding
2. Skin parasites

C. TEETH & FEET

A llama owner can tell if a llama needs its toenails trimmed *by looking at its feet and toenails regularly*.

A llama generally grows fighting teeth at *2 1/2 years old*.

A male llama has *six* fighting teeth. Normally *two on top and one on the bottom of each side*.

D. HEAT STRESS & COLD WEATHER

Normal temperature of an adult llama; *99°–101.8°F. Check with a rectal thermometer*.

To prevent heat stress: *Have plenty of fresh water at all times and provide shade*.

Three signs of heat stress:

1. Extreme laziness
2. Open-mouth panting
3. Loss of coordination

To help a llama experiencing heat stress:

1. Spray the llama's underbelly, legs, and wool-free leg quarters with cool water
2. Use a fan to circulate air
3. Wading pools
4. Shade

Diets *should be changed slowly by combining the old and the new for a period of time* so that their system can adjust.

To decrease stress while showing llama's:

- | | | |
|-----------------|------------------------------------|-------------------------------|
| 1. Practice | 4. Hold firmly | 7. Anticipate llama's actions |
| 2. Talk softly | 5. Interpret llama's body language | 8. Be consistent |
| 3. Stroke llama | 6. Be patient | |

X. LLAMA TRAINING

Two most important areas to desensitize:

1. Head
2. Legs

Four steps in desensitizing the back legs:

1. Get the llama used to you standing at its side.
2. Brush down the back and front of legs with your hand.
3. Use the brush on the legs.
4. Run your hand down the legs, finally picking up the legs.

A good llama trainer can anticipate a llama's actions by *recognizing* and *interpreting* the llama's movements.

Move slow and work easily using lots of repetitions.

A. EQUIPMENT

A growing llama *will periodically need a larger halter, and it helps to desensitize.*

When training a llama to walk with a lead rope:

1. Say WALK
2. Tug sideways
3. Have the llama walk with a llama buddy
4. Have a friend (human) walk behind the llama

B. PROCEDURE

To gain trust:

1. Talk
2. Feed
3. Stroke

To tug and release *gives them a choice instead of forcing them to move.*

When desensitizing:

1. Move slowly and be patient
2. Reward llama with verbal praise

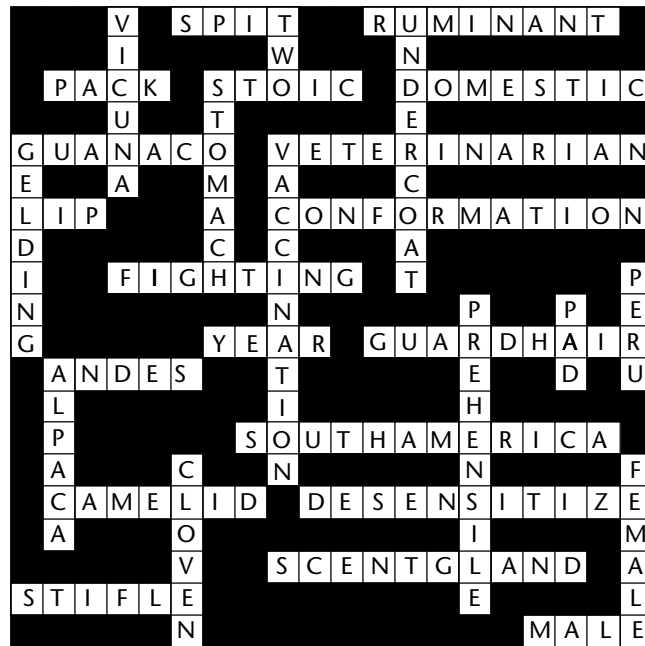
C. PACKING

A full grown llama can hold $1/4$ to $1/3$ of its body weight when packing.

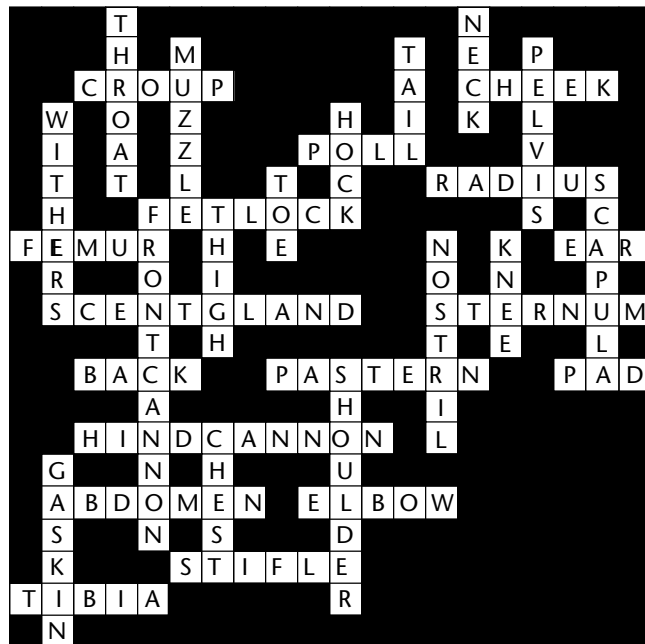
A llama must *trust* its trainer before it will feel comfortable while packing.

Be sure to pack the load so it is weighted evenly on both sides.

ANSWERS: ADVANCED LEVEL CROSSWORD PUZZLE



ANSWERS: EXTERNAL LLAMA DIAGRAM CROSSWORD PUZZLE



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