

Why Do People Raise Sheep?

Grades K-3

Adaptable for Grades 4-6

Lesson #114

Written by Pamela Emery

With special thanks to:
Kathy Rinckenberger for invaluable
lessons and references.



California Foundation For
Agriculture In The Classroom

1601 Exposition Boulevard
Sacramento, CA 95815
(916) 924-4380

Pilot Draft, 1991

WHY DO PEOPLE RAISE SHEEP?

GRADE LEVELS: K-3

SCIENCE THEMES: Scale and Structure
Patterns of Change
Evolution
Systems and Interactions
Energy

(This unit can fit into any of the science themes depending on how the teacher structures the unit. The way the unit is written, the themes of Scale and Structure and Patterns of Change are emphasized.)

CONCEPTS: *Humans use animals for food and clothing.
*All resources used by humans ultimately come from the earth.
*Sheep eat on land that cannot be utilized by other animals.
*Wool has unique chemical and physical properties that make it suitable for clothing.
*Sheep have unique teeth and digestive systems.
*Wool is a renewable resource that comes from sheep.

(* These concepts are covered in the Life Science Sections A-4, pp. 125-126; C-1, pp. 136-137 and C-4, pp. 141-142; Earth Science Section B-4, p. 97 and Physical Science Section A-1, pp.41-44 of the California Science Framework.)

OBJECTIVES: The students will:

- a) examine and perform the processes in which fleece becomes clothing.
- b) determine what kinds of items are produced by sheep or sheep by-products.
- c) explore the unique characteristics of the sheep digestive system.
- d) find out what parts of sheep are eaten by humans.
- e) perform experiments to determine the characteristics of wool.
- f) analyze why people raise sheep.
- g) examine different kinds of fabric and determine which ones are manmade and which ones are natural.
- h) spin wool with a drop spindle and weave it into a piece of fabric.

SEQUENCE OF ACTIVITIES:

- 1) Sheep Or No Sheep?
- 2) What Parts Of A Sheep Are Good To Eat?
- 3) What Is Wool and Why Is It So Special?
- 4) Don't Let The Wool Be Pulled Over My Eyes!
- 5) Why Can Sheep Eat In Places Other Animals Cannot?
- 6) Why Should We Take Sheep To Baalamazu?

MATERIALS NEEDED.

Sheep Or No Sheep Card Sets-- 1 set per person

Manmade Or Natural Fiber Guessing Board

Samples of Wool, Acetate, Polyester and Cotton for Experiments (1/4 yard each)

Wooden Clothespins-- 1 per group

Metal Hangers-- 1 per group

Matches

1/2 teaspoon measuring spoons--several

Cups or Petri Dishes-- 3 per group

Water

Combed wool

Drop Spindles-- 1 per person (requires 1 potato, 12" of yarn and one 12" piece of 1/4" doweling for each spindle)

Looms-- 1 per person (requires 4" X 6" of Wood and 16-20 nails for each loom)

Hammer

Yarn for weaving

Objects for Don't Pull The Wool Over My Eyes Activity-- lipstick, gum tires, film, marshmallows, lotion, soap, etc.)

Crayons or Markers

Construction paper for sheep bookcovers

Glue

Copies of Appropriate Handouts

Throughout this unit, the lesson instructions will refer to a "Sheep Book." You can have your students create a book about sheep by having them save their papers from this unit. One "Sheep Book" outline is included in this material.

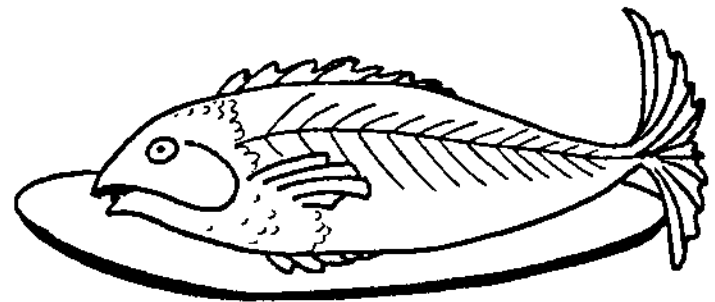
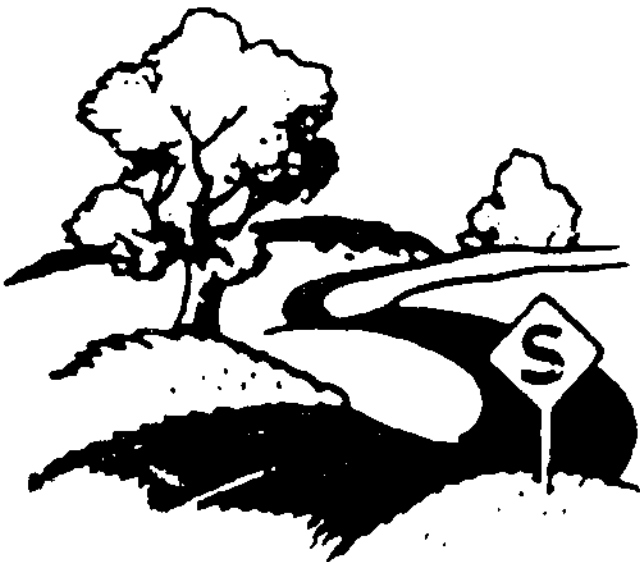
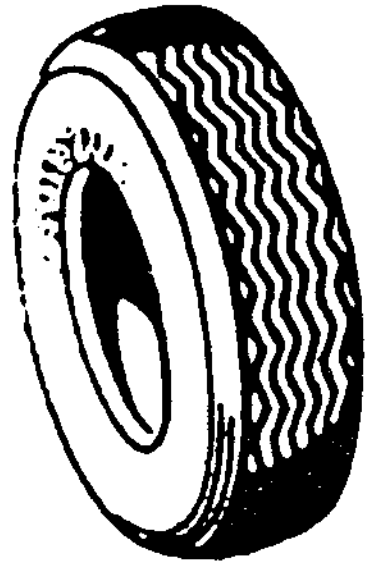
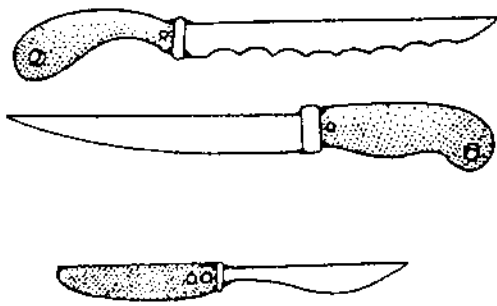
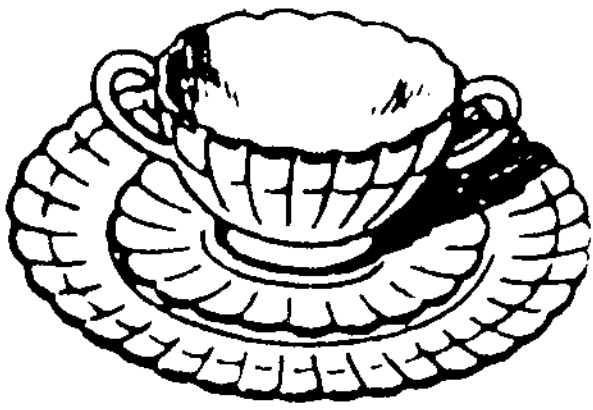
SHEEP OR NO SHEEP? THAT IS THE QUESTION!! Teacher Instructions

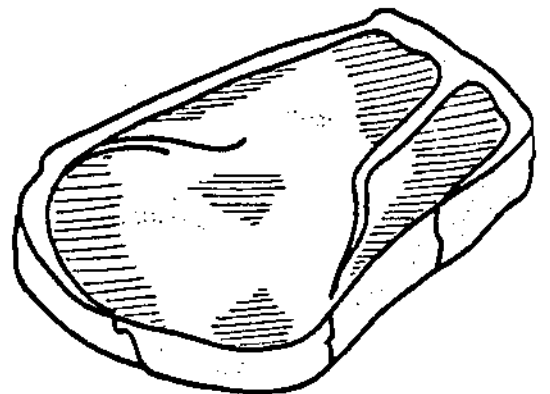
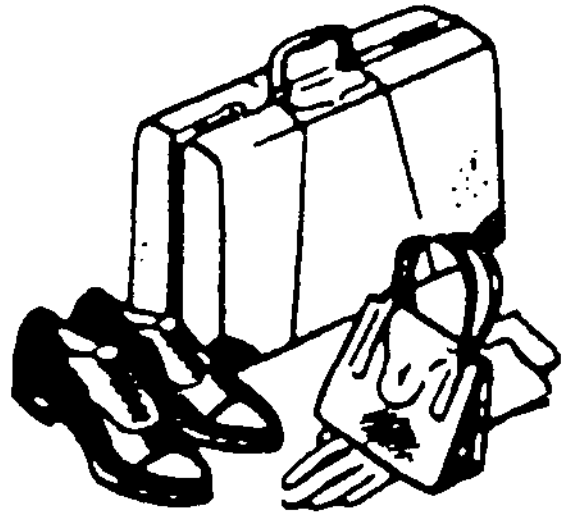
This lesson is the "Focus" lesson for the unit. The students should be encouraged to think independently during this first activity.

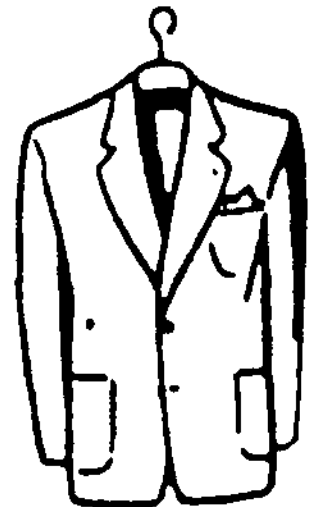
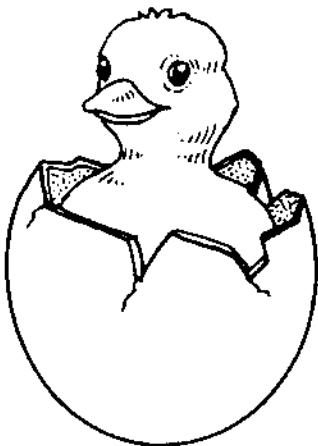
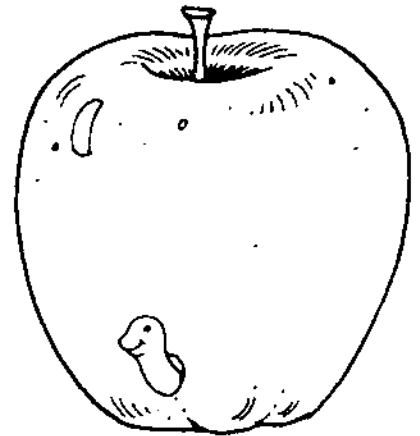
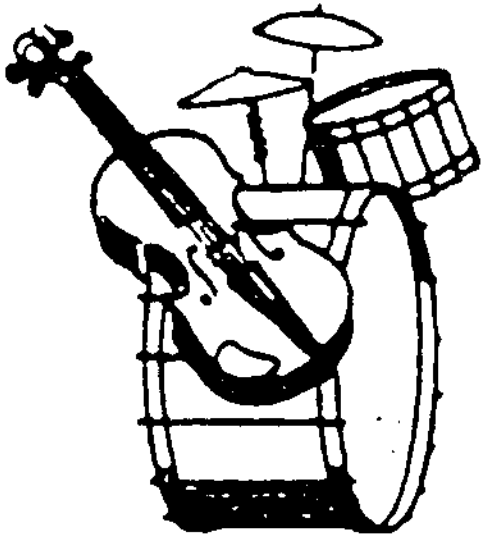
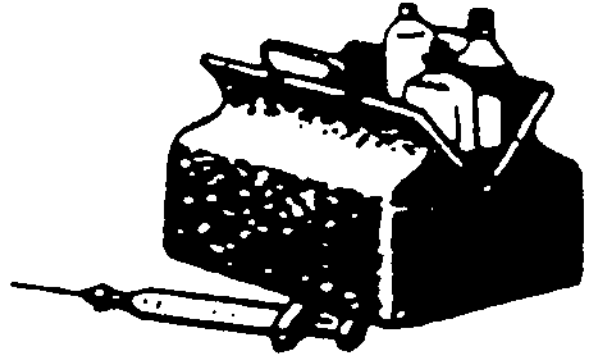
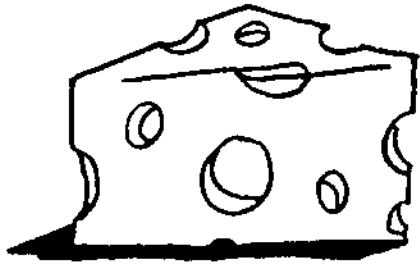
- 1) On 1/2 sheet of paper, have the students draw picture of a sheep. On another 1/2 sheet of paper, have the students draw a picture of a sheep with a line going through it (like the Ghostbusters symbol).
- 2) Pass out one set of 24 pictures to each student. They should be cut on the solid lines.
- 3) Explain any confusing or unclear pictures or discuss what each picture represents.
- 4) Have the students group the pictures into two groups--the pictures that are made from sheep products should be placed under the picture of the sheep. The products that do not come from a sheep should be placed under the "no sheep" picture. Remind the students that this is their hypothesis and that most likely no two people will agree on exactly the same groupings.
- 5) Make a class graph of the guesses. Perhaps a picture graph could be made using the cut out pictures. A bar graph would also work well to show the class predictions.
- 6) Display the graph throughout the unit and refer to it often.

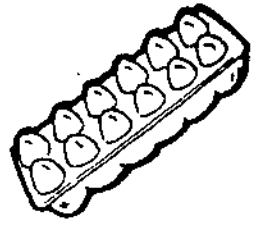
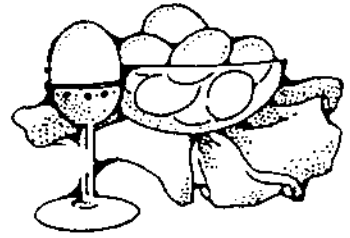
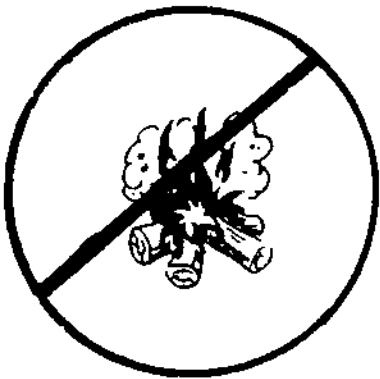
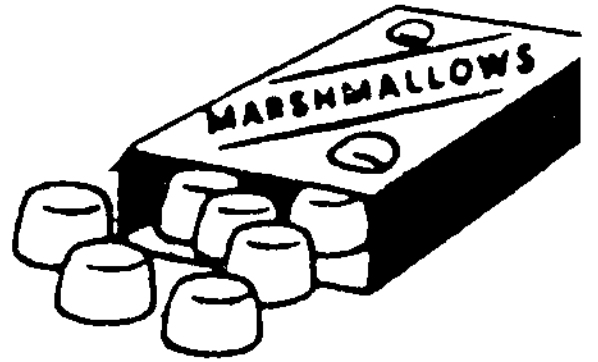
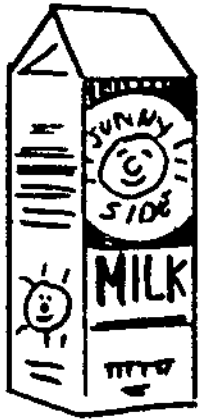
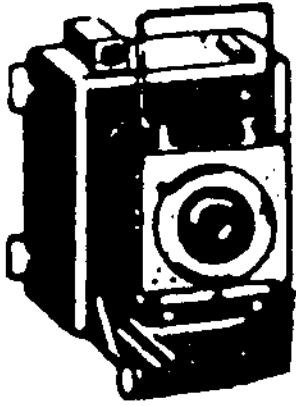
WHAT PARTS OF A SHEEP GIVE US GOOD MEAT?

- 1) Show the picture of the sheep that has arrows pointing to different sections.
- 2) Have the students guess which parts of the lamb (sheep) are commonly eaten by people. They should write down their predictions.
- 3) Explain to the students that the following parts are normally eaten by humans:
 - a) Leg of Lamb #6
 - b) Loin Roast and lamb chops #8
 - c) Shoulder and Brisket #3
 - d) Breast Riblets #5 (not as common)As you discuss each part, have the students color and label the appropriate sections. You might want to have the words preprinted for younger students.
- 4) If appropriate, bring in cooked lamb and have the students try it. Some local butchers will donate a small piece of lamb to teachers if it is requested on school letterhead.

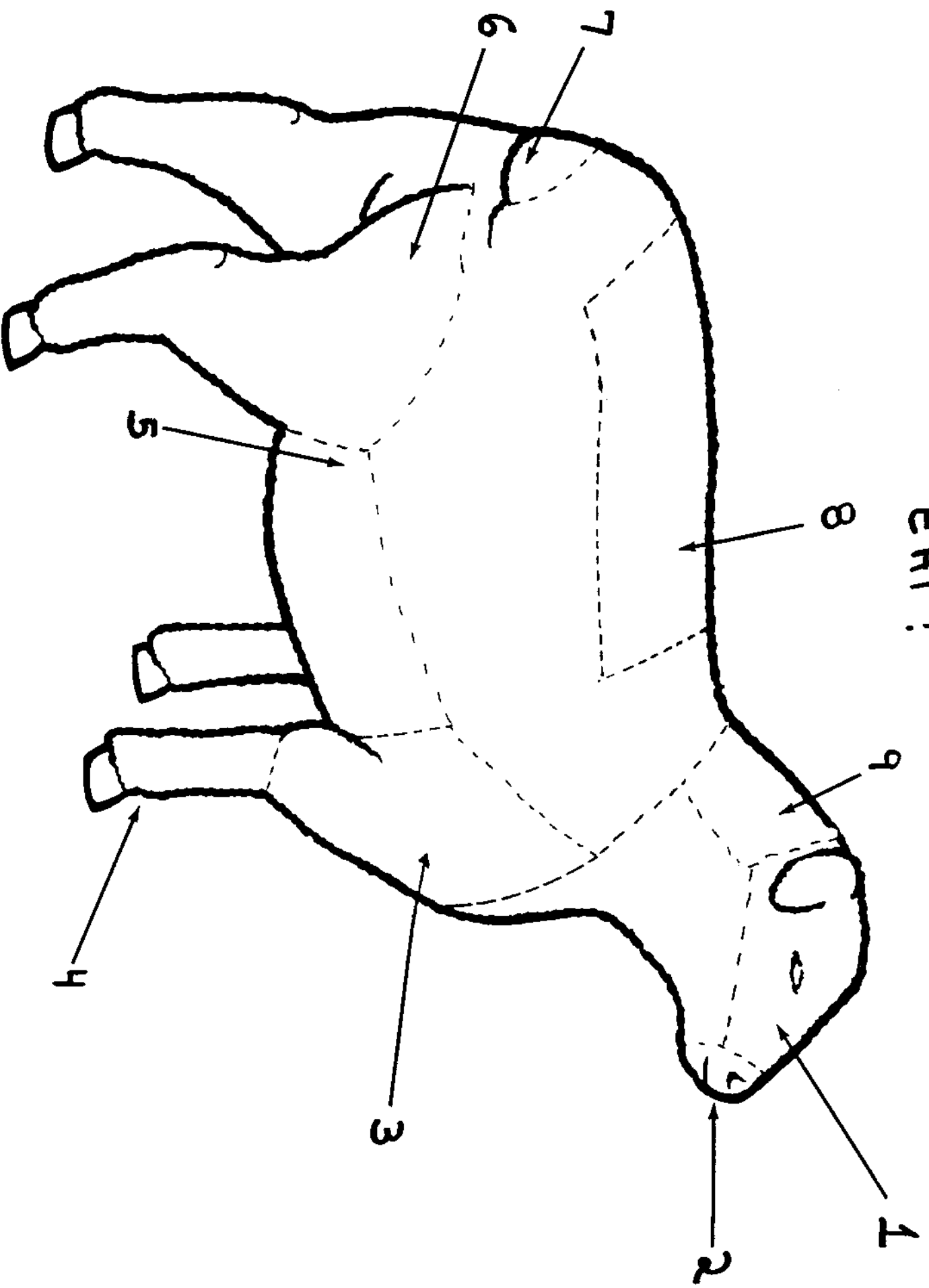








What Parts of Sheep Do You Think People EAT?



WHAT IS WOOL?

WHY IS WOOL SO SPECIAL?

INTRODUCTION: Remember, the major objective of this unit is for your students to understand why sheep are raised by shepherds. The following lessons should show your students some unique characteristics of wool. As a natural fiber, wool has several desirable properties that make it a good choice as a clothing fabric.

Demonstration:

- a) Many students have not seen a live sheep. If possible, show your students a live sheep. Many 4-H students raise sheep for their projects. Contact your local 4-H chapter.
- b) Show a video or filmstrip of a sheep being shorn. There are many great videos and/or filmstrips available from the American Wool Council 6911 So. Yosemite, Dept. C-689, Englewood, CO 80112 "From Fiber to Fabric... Wool's a Natural" is \$12 plus shipping.
- c) Read A New Coat For Anna by Harriet Ziefert and/or Charlie Needs A New Cloak by Tomie dePaola. These books show the fleece to fabric process. Your students will perform this process!

EXPERIMENTS

These experiments are best done if they are in small groups of 3 or 4. Firsthand experiences are very important!

Experiment 1: Manmade or Natural?

Obtain 8-14 different kinds of fabric pieces each about 2" X 3"-- some natural and some manmade. Fabric store employees should be able to help you. Make sure that you have samples of silk, cotton and wool-- the 3 main natural fibers. Glue your samples on a board and number each piece of fabric.

- 1) Discuss with your students the difference between manmade and natural products. Manmade products do not exist on the earth in natural form. Natural products can exist on the earth, somewhere, without the assistance of man. For example, coal and crude oil are natural substances but the products made from crude oil such as asphalt, gasoline, etc. are manmade

products. Read the two sentences on the bottom of the student worksheet, as a class, before beginning step #2.

2) Have each of the students examine the different fabrics and guess which ones are manmade and which ones are natural.

3) Discuss the answers with your students.

a) Explain to them that silk comes from the cocoons of silkworms.

Silkworms eat mulberry leaves. You might want to order some silkworm eggs from Carolina Biological Supply or another science product company. You can produce silk in your classroom.

b) Also, let students know that cotton comes from a plant. You can obtain 1 cotton boll (which contains about 35 seeds) from your local chapter of California Women in Agriculture. If that is not possible, contact the California Foundation For Agriculture in the Classroom (916) 924-4380.

c) The students will find out plenty of information on wool in this unit so at this point, just state that wool comes from sheep.

4) Explain to your students that the natural fibers on the fabric board are renewable rather than nonrenewable-- renewable fabrics can be obtained over and over again relatively easily. Synthetic fabrics are usually made from petroleum-- a product which is nonrenewable since it takes millions of years for petroleum to form. Discuss why some people believe that only natural fibers should be used for clothing--there are pros and cons to this issue.

5) Discuss the feels of the fabrics. Are there differences in the feels of manmade vs. natural fibers or has man been able to make good imitations of the natural products?

6) Have your students make a page of manmade and natural fabric samples for their sheep book.

Experiment 2: Will It Burn?

****DISCUSS SAFETY RULES WITH YOUR STUDENTS BEFORE PERFORMING THIS EXPERIMENT. USE PARENT VOLUNTEERS TO ASSIST YOUR STUDENTS****

1) Tell your students that you want to know which fabric would be the safest to wear if they were a firefighter. Have the students make their predictions in the appropriate box on a data sheet. Ask the students how this could be tested. The procedure below is a safe way to test fabrics.

2) Unwind a metal coat hanger. Attach a piece of cotton fabric (1" X 2") to the hanger with a wooden clothespin.

3) Light the fabric sample with a match or lighter.

4) Observe the sample as it is lit and after it burns. Have your students place their fabric samples on a data and results page for Experiment #2. These samples will go in their sheep books.

5) Repeat the same procedure with a wool fabric sample and a polyester sample. Test other fabrics, if this meets your class's needs.

- 6) Observe and discuss the following:
- Which sample burned the fastest? slowest?
 - What was left after each sample burned out?
 - Did any of the samples smolder or melt?
 - What types of smells did you notice?
 - If you were to make a fireproof blanket, jacket, or pajamas, what fabric would be the best? So, what type of fabric would be best for a firefighter's jacket?
 - You might discuss that there are chemicals that can make things fire retardant. Perhaps the difference between fire retardant and fireproof could be discussed.

Conclusion:

- The wool fabric should have been the most difficult to light, it probably smoldered, and probably left the largest piece of fabric after the flame went out.
- The reason wool does not support a flame is because the wool fibers retain moisture in the center of the fiber. Cotton and polyester fibers burn quicker because they are solid fibers that do not retain moisture. The next experiment will illustrate, more clearly, that wool absorbs moisture inside the fibers themselves.

Experiment 3: Why Is Wool Such A Popular Fabric For Clothing?

- Ask the students to think about "wool and rain" and "wool and perspiration." Have them make predictions about how wool reacts with water on a data and results page for Experiment 3. Ask the students how their predictions could be tested. Perhaps you could suggest the following procedure
- Cut a piece of wool and a piece of acetate into squares approximately 2" x 3". Each square should be the same size.
- Place each sample into a separate cup or petri dish.
- Pour 1/2 teaspoon of water onto each sample and let them sit long enough so that all of the water is absorbed. The entire samples should be wet but not dripping wet. In fact, squeeze out any excess water.
- Remove each sample and place it on a person's arm. For comparison reasons, it is best to have both samples on the same arm at the same time. Each person in the group should actually experience the feel of the materials.
- Observe and discuss the following:
 - What did the 2 fabrics feel like on the skin?
 - Which fabric felt the wettest?/driest?
 - Which fabric felt the warmest?/coldest?

- d) Did any of the fabrics stick to the skin?
 - e) Why do you think wool is a desirable fabric for clothing?
- 7) On a data and results page for Experiment #3, have your students show what they learned about wool and rain and perspiration.

Conclusion:

- a) The wool should have felt the driest and the warmest. The acetate should have felt the wettest and the coldest.
- b) Wool fibers have scales on the outside of the fiber and are able to absorb moisture to the inside of the fibers. This allows wool to absorb 30% of its weight in water. Since the water is absorbed to the inside of the fiber, an air pocket surrounds the skin and makes the skin feel comfortable. The skin feels warm and dry even if it's wet. This air pocket also helps during hot weather too--a person can perspire more, which helps him/her to cool down, because the wool absorbs the moisture. Cotton and acetate do not absorb moisture into the center of their fibers; therefore, a person feels cold and wet when they are exposed to moist fibers.

Experiment 4: Why Is Yarn Made????

- 1) Give your students a piece of wool and a piece of wool yarn
- 2) Have each team examine the two items carefully.
- 3) The group must come up with 3 reasons why yarn is made out of wool.. Let the students pull the wool and wool yarn apart, wet the items, etc. so they can come up with 3 great reasons wool is made into yarn.
- 4) As a class discuss the reasons; perhaps these reasons can be posted on a chart
- 5) Ask the students if they have pulled on the wool and wool yarn. Which one is stronger? Which one has longer fibers? Why is this important in making clothes?
- 6) Why is the yarn plied? If the students have not yet unplied (untwirled) the yarn, have them do this and then test the strength of one strand vs. two strands vs. three strands.
- 7) Have the students glue their yarn and wool onto a Data and Results page for Experiment 4 and describe what they learned.

Conclusion:

- a) Yarn is made because it can be woven into a fabric which can be worn.
- b) The wool yarn is plied to make it stronger.
- c) The more plies the yarn has, the stronger it is. Yarn also becomes thicker as more plies are added.

Experiment #5: Let's Make Some Fabric

There are many ways to make raw wool into fabric. The attached handouts show you one way to spin wool with a drop spindle, one way to ply yarn, and a couple of ways to weave the yarn into fabric. You may have other ideas of your own.

1) SPINNING--Have your students spin combed wool into yarn using a drop spindle. Combed wool is best for beginning spinners. Combed wool has been cleaned and forced through a series of needlelike combs to make the fibers straight and parallel. You might want to demonstrate spinning wool or have a spinner come in if your students are too young to spin themselves.

2) PLYING--After the wool is spun, the yarn should be plied as follows:

*Have your helper find the middle of the yarn while you hold both ends-- **Do not let go or the yarn will unravel!** Hold the two strands of wool side by side. You will find that they want to twist together. Let them! This is plying. Slowly let the two pieces twist together in the direction they want to twist. If you twist the opposite way, you will unspin your yarn. When the yarn has finished twisting, twist it a little more to help it ply together. The double strand is now stronger than the single strand and will not unspin easily. You have just made 2 ply yarn.

3) WEAVING--Instead of having your students use their own wool yarn to do the weaving, Aunt Lydia's Rug Yarn works very well. Students will have more success in their weaving if they use a more even yarn AND all students will be able to weave even if they were not successful at spinning wool. You can make simple looms by using wood and #4 nails. A good size loom is 4" X 6". You might want to make a big loom for the class so that you can make a big piece of "CLASSY CLOTH!" Third grade students can make their own looms if you have enough patience! Different ways of weaving are illustrated in the attached handouts. The woven fabric can be used as a bookmark, a pendant, etc.

4) If you have not yet shown the students a filmstrip or video on making fabric from fleece, do so now. If you already have shown a video, you might want to show a second one now that the students have performed the processes themselves.

5) Have the students make a page for their book showing raw wool, spun and plied wool and woven wool.

ARE THESE FABRICS MADE FROM NATURAL OR MANMADE FIBERS?

Make your predictions below. Write N for natural and M for manmade.

- | | |
|----|-----|
| 1. | 6. |
| 2. | 7. |
| 3. | 8. |
| 4. | 9. |
| 5. | 10. |

*Natural fibers are those harvested from plants and animals.

*Man-made fibers are made by mixing certain chemicals together. Many times these chemicals are extracted from crude oil that comes from the earth.

NAME _____

ACTIVITIES

1. Show the students a world map or a transparency of the world. Color in or mark the following countries: Australia, Soviet Union, New Zealand, Argentina, South Africa, United States. Ask them if they know what these nations have in common. (They are the top six wool producing countries of the world in rank order.)

2. Look at maps of sheep raising areas either in the U.S. or in the world. Compare the types of land where sheep are found. What kinds are they — arid, wet, fertile? Why does the land where sheep are found have so many variations? Is this true of the grazing land of other animals? (Geography)

3. Make a time line with the following dates: Today, 1800's, 1786, 4000 B.C., 1493, 1521, 1664, 1765, 2500 B.C., 4000 B.C. — Wool garments worn in Babylon, 2500 B.C. — Mesopotamia had developed important sheep industry. 1493 — Columbus brought sheep to Cuba. 1521 — Cortez brought sheep to Mexico. 1664 — Law in Massachusetts that required youths to learn to spin and weave. 1765 — Restrictions on wool by England incurred great protest. 1800's — As man settled the middle and western United States sheep moved with them. Today — Wool is a renewable resource, a primary natural fiber in clothing and a source of other natural by-products.

4. Sheep raising has been important to man for his basic needs of food, shelter and clothing. Explain how sheep were used by man as he crossed the many frontiers in the new world. (History, Sociology)

Because sheep can feed nearly any where and provide wool as well as meat, men have taken sheep along on their migrations. The Spanish explorers brought sheep to the new world on their voyages of exploration. Colonists and settlers found sheep invaluable as a source of good quality protein (red meat) and wool for clothing.

5. Most human beings like to be around other people. A shepherd spends many months away from people with his dog and the sheep as his only companions. Imagine you are a

shepherd. Write several entries in your diary telling about your life and what you see in nature around you. (Sociology)

A SAMPLE ENTRY:

Mon. — Saw a coyote today on Razorback Ridge. Don't see many but I hear 'em at night, howling and calling each other.

Tues. — Hunters around today. But they're looking for the coyotes. Noticed some pretty wildflowers, all pink with a white center. I don't think I've ever seen them before.

6. If there were no animals like sheep and cattle to eat grass, millions of acres of land in this country would be useless. Can you explain why this is important?

7. Refer to your time line. Show how the wool industry has affected the economy of our country from colonial days to the present. (Economics)

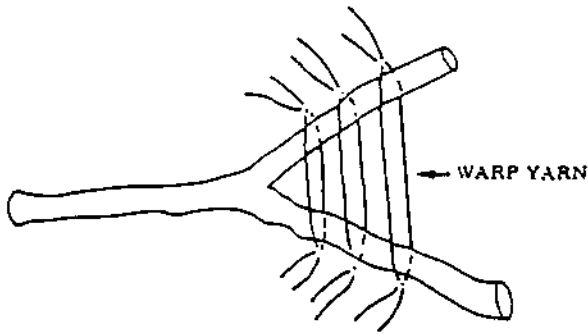
8. Imagine you are employed as a spinner or weaver in Colonial Massachusetts. The time is 1769 and the first woolen mill has just started operating. Describe your feelings as you see the big machines working. Also discuss what effect you think this will have on your job. What other jobs might you have to learn? (Economics & Sociology)

9. Why do you think many people are returning to old practices of spinning and hand weaving again? (History, Economics, Sociology)

10. Either in class, your art class, or in a civic group in which students are active, try some spinning or weaving. The finished products can be displayed for others to see.

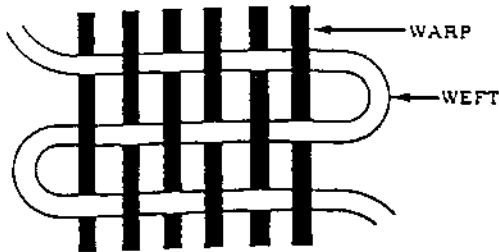
WEAVING ON A BRANCH

For your weaving frame, cut a Y-shaped tree branch that is still a bit green — a dry one would be too brittle and might break. For the lengthwise yarns (warp), use a strong yarn. For the crosswise yarns (weft), use small amounts of various fibers such as unspun wool, and other natural yarns.



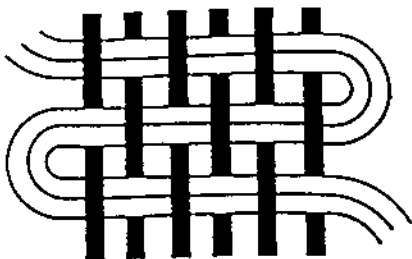
Cut the warp yarn into pairs of yarns that will fit across the Y branch at $\frac{1}{2}$ -inch intervals. Allow an extra 8 inches at each end for knots and fringes. About 8 inches from one end, tie an overhand knot in each pair of warp yarns. Beginning at the narrowest point of the Y, place this knot on the outside of one branch. Then stretch the two warp yarns across to the outside of the opposite branch, and tie another overhand knot. Continue warping at about $\frac{1}{2}$ -inch intervals, depending on the branch.

When the warping is complete, you are ready to weave. To weave, pull the crosswise yarns (weft) alternately over and under the lengthwise yarn (warp).

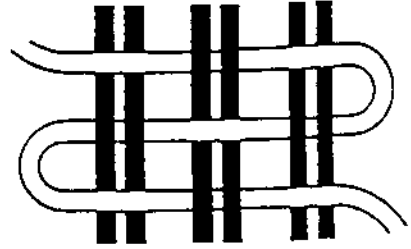


VARIATIONS

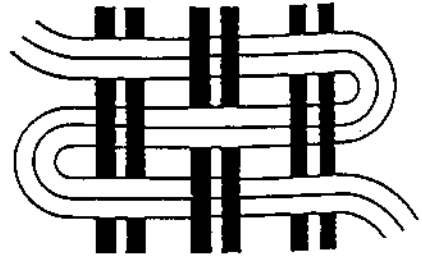
- A. Weave some areas more tightly than others;
- B. Use two yarns together on the crosswise;



- C. go over and under two lengthwise yarns at a time;



- D. Use two yarns together to go over and under two yarns at a time;



- E. Use different materials, grass, paper, etc.

11. From the following list of sayings, choose one; draw a cartoon illustrating it and write a short paragraph explaining how it is used in our everyday life today.

- He is pulling the wool over your eyes.
- He is woolgathering.
- That person is a knitpicker.
- That man has been fleeced.
- The black sheep of the family.
- A dyed in the wool football fan.
- He went to sleep counting sheep.

12. Have students recall some of their favorite Nursery Rhymes that mention sheep / lambs. Those who wish to can try to write some new rhymes and illustrate them. This could be a good activity to present to younger children in the school. They could even set them up in book form for the primary children to read.

13. Make a large mural showing a pastoral scene of sheep grazing with cattle. Use the mural to explain the concepts of a modern times sheep ranching operation.

DON'T LET THE WOOL BE PULLED OVER YOUR EYES

Teacher Instructions

It is important for students to realize that all parts of an animal are used for one reason or another-- nothing is wasted. We have many useful products made from animal parts that are not normally eaten by humans.

1) Place the items from the list below in a separate brown paper bag. Each of these items has an animal product in it. It is important for the students to know that not only sheep are used to make these items, but all animals slaughtered for food give us other useful products.

- Lotion--contains lanolin from sheeps wool; it helps moisturize the skin
- Soap-- contains lanolin
- Film, Marshmallows, Jello-- contain gelatin from animal tissue (sometimes seaweed is now used also)
- Tires-- contain chemicals produced by sheep that help make the tires run cooler.
- Bone China-- contains ground bone
- Bone Charcoal-- contains ground bone and is used to make high grade steel
- Wool-- for clothing; obtained from sheep fleece
- Cheese-- contains rennet a product of sheep organs
- Leather--the hide of the animal
- Glue-- from animal tissues
- Knives-- the bone handles are valued by butchers
- Medicine-- insulin for research comes from the pancreas of animals
- Sutures-- a special dissolving thread used for stitches comes from intestines
- Drumheads or violin strings-- from animal hides and/or intestines.

Make your guessing bags appropriate for your grade level.

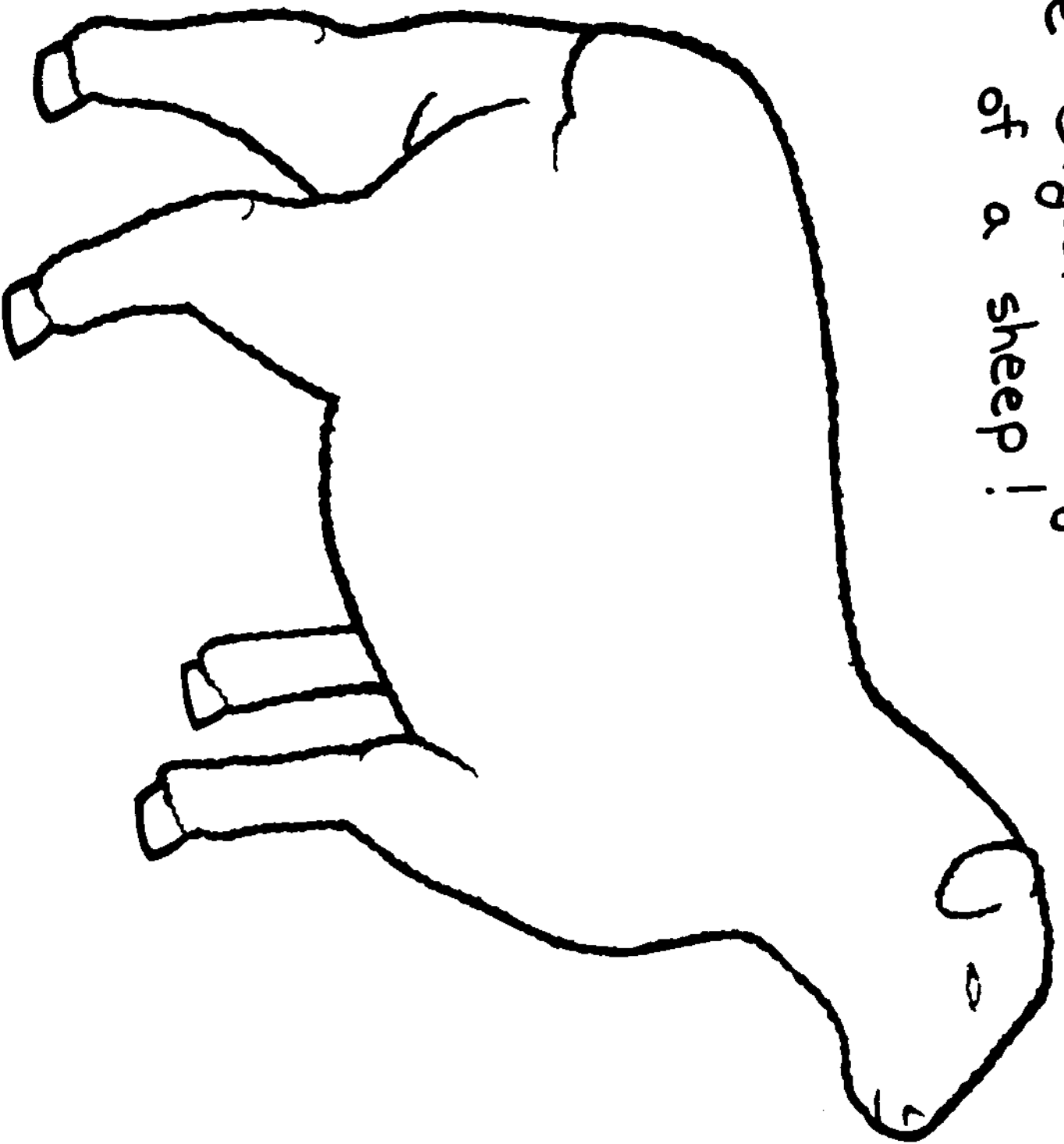
- 2) Have each student make a paper that says, "Don't Pull The Wool Over My Eyes" On this paper, they will draw the items they learn contain a sheep product.
- 3) Invite one student up to the front of the room and have him/her place his/her hand in the mystery bag.
- 4) This student must describe what is in the bag without telling the class what it is. A good way to prevent students from saying the name of the item is by making them say "It's..." not "It's a..."
- 5) The rest of the class listens to the descriptions and thinks of 3 things it can be and 3 things it cannot be. The large list prevents students from tuning out as soon as they think they know the name of the item..

- 6) After an appropriate amount of time, bring out the item and discuss what part of it contains a sheep product
- 7) Have the students draw this item on their paper.
- 8) Continue with the other items on the list. You may choose to do a couple of items each day.
- 9) The final paper with all of the drawn pictures can become part of the sheep book.

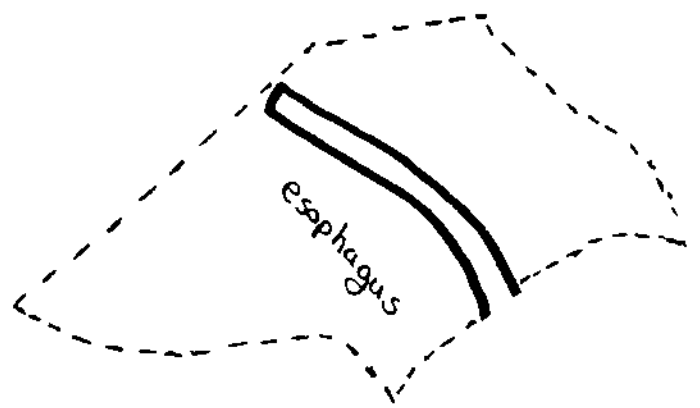
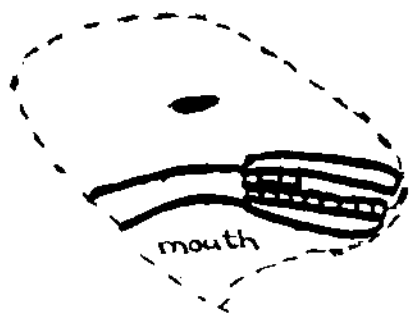
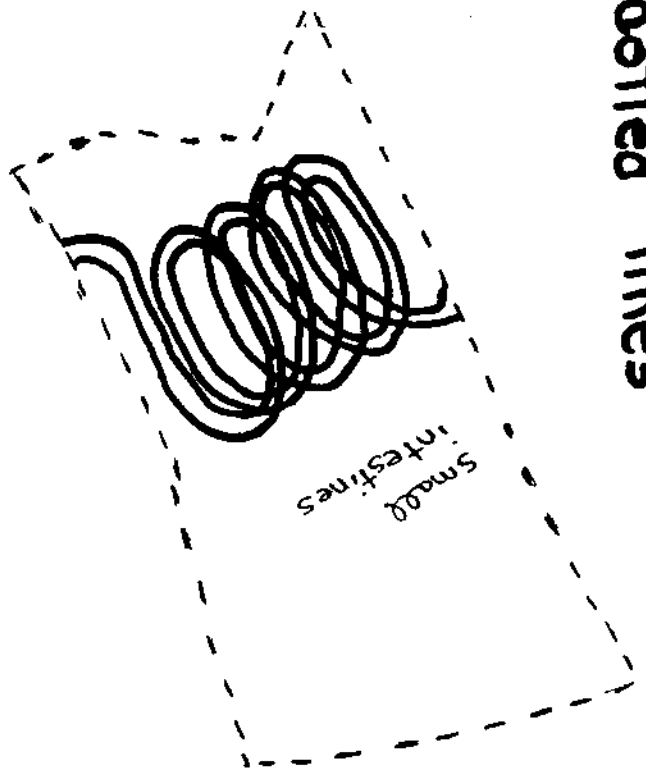
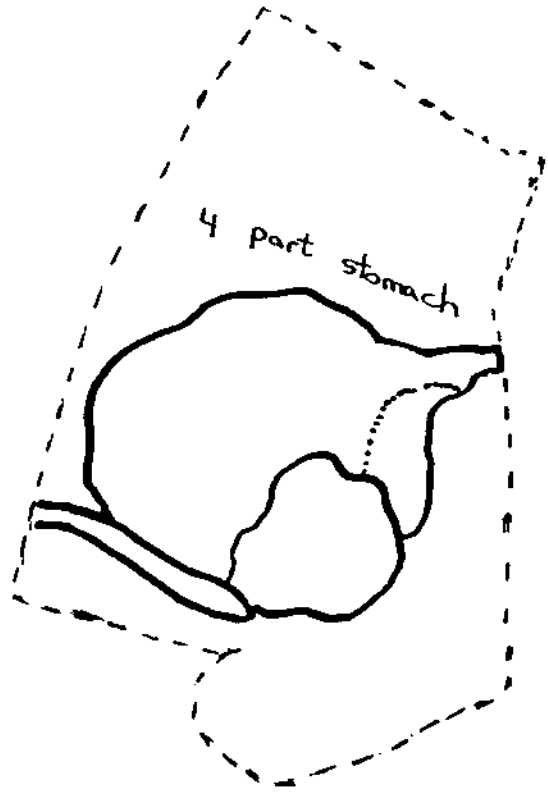
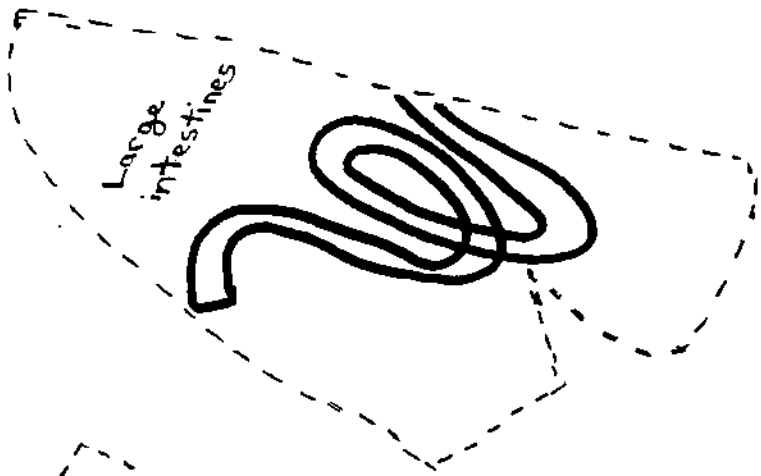
You can discuss this process with your students and have them glue the parts on their sheep as they learn the process.

"The Promise of Life" by Modern Videos in San Francisco is a great reference. You, personally, can learn a lot from this video if it is too advanced for your students.

The Digestive System of a sheep!



Cut out on dotted lines



WHY SHOULD WE TAKE SHEEP TO BAALAMAZU? Teacher Instructions

This lesson is the "Application" part of the unit. You will find out how much your students have truly learned as you listen to and look at their work. Give your students freedom in this activity. They will need time to process the information that they learned throughout the unit. Provide guidelines on how the groups should work but be flexible on how the students present their material. Also, allow the students to investigate how the other animals in the list exist.

Several weeks after the students have completed their sheep book, do the application below.

1) Read the following paragraph to your students:

It is 1762 and your kingdom was just told that a new land called Baalamazu was discovered. You know nothing about this land. There might be animals and there might not be animals. There might be people and there might not be people. There might be plants people can eat and there might not be good eating plants. You are part of the team of people that will take a small ship to this new land. There is room for only two animals aboard your small ship-- one male animal and one female animal. You must decide on what type of animal to take. Your team has narrowed down your choices to 2 dogs, 2 cats, 2 penguins, 2 guinea pigs, 2 giraffes, 2 sheep, or 2 snakes. What animal would you choose to take to these islands?

2) Using pictures and words have your students show why they would take the animal that they chose. Let the children use you as a resource. This will save time and allow the students to be creative with their answers.

**If this application is too difficult for your students, think of another way that your students can apply what they learned about sheep. DO NOT skip this application step. This is where students really clarify their thoughts about what they have learned.

** The simple question, "Why do people raise sheep?" might be an application for very young students.

A POSSIBLE SHEEP BOOK OUTLINE

This outline is one of many possible ways your students can make their own sheep book. Use your own creativity to make the sheep books meaningful to your students.

- Page 1--WHY DO PEOPLE RAISE SHEEP?--have the students make a sheep covered with real wool.
- Page 2--"Sheep give us food." Students can put in their picture of the sheep with the parts that people eat.
- Page 3-- "Sheep give us wool that can be used to make clothes." Students cut a shirt or pants pattern out of wool and glue it on this page.
- Page 4--"Wool is a special fiber. It is natural-- not manmade. This means that we can get wool year after year." Students glue manmade and natural fabrics on this page.
- Page 5--"Wool does not burn easily so it can be used to make fireblankets." Have students glue on their fabric samples that they burned and label them with the appropriate names.
- Page 6--"Wool can make your body feel just right-- not too hot and not too cold" Have students show their results of the "How Does It Feel" lab.
- Page 7--"Wool can be spun into yarn, plied and woven. We can make wool material into clothes." Have students glue raw wool, plied wool, and woven wool samples on this page.
- Page 8-- "Sheep give us other things besides meat and wool" Have students draw objects made from sheep as they do "Don't Pull The Wool Over My Eyes.
- Page 9--"Farmers like sheep because sheep make good use of the land They have a special 4 part stomach. Sheep have a hard plate on the top part of their mouths Instead of teeth. Sheep are special because they can eat on land that other animals cannot." Have the students put in their picture of the sheep 's digestive system.
- Page 10-- Have your students write and/or draw a closing statement about sheep. Perhaps a page about Baalamazu might be appropriate.

DON'T BE SHEEPISH, JUST ASK!
The truth about sheep and wool

Sheep terminology:

ram- male sheep
ewe- female sheep
lamb- baby sheep
wether- castrated male
fleece- wool from one sheep

Sheep facts:

Sheep are shorn once a year.

Sheep shear an average of 8 pounds of wool per year, and some shear as much as 20 pounds.

Wool is greasy before it is washed. The grease is called lanolin.

Sheep lamb once a year, usually in the fall or spring.

Sheep usually have two lambs per year, called twins. Lambs can walk within an hour after birth.

Lambs are born with wool.

Lambs have tails at birth. The tails are cut off, or docked before they are one month old.

Sheep have teeth only on the bottom in front, and on the top and bottom in back.

Sheep have a four part stomach. The parts are: rumen, reticulum, omasum, and abomasum.

The feet of sheep, called hooves (or hoof), need to be trimmed just like the fingernails of people.