Objectives 1. The student will learn about sheep, wool and other products from sheep.
2. The student will learn of the importance of sheep in Texas.

Grade Level 1-3 4-6

TEKS:
R- 1.1B,D,E; 1.11A,B; 1.13A; 1.15B,C; 1.21A
R- 2.1B,D,E; 2.7B; 2.8A,B,C,D; 2.10A,B; 2.14B
R- 3.1B,D,E; 3.8A,B,C; 3.9H,I; 3.10A,B; 3.14B
S- 1.2; 1.4B; 1.6; 1.8; 1.9
S- 2.2; 2.3; 2.6D; 2.8; 2.9
SS- 1.5A,B; 1.6C
SS- 2.5A; 2.9A; 2.10C; 2.16B

TAKS: GRADE OBJECTIVES
Reading 3, 4, 5, 6 1, 4
Writing 4 1, 4, 5, 6
Science 5 1, 2
Math 3, 4, 5, 6 4, 5

Assessment Summary:
Objective 1: Students will learn about sheep, their products and by-products.
Objective 2: Students will learn where sheep are raised in Texas.
Activities: Grade Appropriate Activities included in lesson

Writing: Grades 1-2: Using a list of vocabulary words, students will write a paragraph about sheep.

Grades 3-6: Using the Internet and other resources, students will choose one type of sheep and write an informative essay telling about the different breeds of sheep, where they are raised, and the products we get from them.

Project: Have students make posters showing different breeds of sheep, sheep facts, and products that come from sheep.

Background Information: Sheep are a major enterprise in Texas. Texas ranks #1 in lamb production, wool production, and sheep operations in the U.S. Texas is well known for its fine wool fleece. These sheep are found on the rangelands of central and west Texas. Although there are more fine wool breeds than medium wool breeds, a big portion of feeder lambs is a cross of both. Sheep compliment cattle in grazing because they eat forbs or weeds in addition to grass. The main problem in raising sheep is keeping away predators such as coyotes, bobcats, foxes, and mountain lions. Sheep milk is used in making some cheese.
Sheep N’ More

Procedure

1. Introduce new vocabulary:

   Grades 1-3                     Grades 4-6
   Bleat                        Forage
   Ewe                          Mutton
   Flock                       Range
   Herd                        Fleece
   Lamb
   Predators
   Ram
   Shearing
   Shepherd
   Wool

Activities

2. The teacher will open unit by reading and discussing “Learning About Sheep” included in the lesson. Tell the class they will be learning about sheep and the importance of sheep to Texas. The teacher will read non-fiction books about sheep. While reading these books, the class will make a chart on butcher paper listing facts about sheep. You could also use one of the curriculum packets from Texas Sheep & Goat Raisers’ Association.

3. Have students complete grade appropriate “Sheep Vocabulary.”

4. Give each student 2 maps of Texas with the counties outlined. Have them label the first one “Top Lamb Producing Counties.” Using the “Sheep and Wool Activity Sheet” have students locate and color the top 5 lamb producing counties as follows: 1st red, 2nd blue, 3rd green, 4th yellow, 5th orange. Then give students the other map and have them label it “Top Wool Producing Counties.” Have students locate and color the top 5 wool producing counties as follows: 1st purple, 2nd brown, 3rd black, 4th pink, 5th gray. Have students compare lamb production to wool production.

Extension: Have students go to the Texas Agriculture Statistics Service at www.nass.usda.gov/tx and use table to locate and rank top 5 Sheep and Lamb counties and top 5 wool producing counties. Mark each on separate Texas maps.
Assessment: (1-2) Have students write a sentence or paragraph about what they learned about sheep. Give them a list of the vocabulary words to use in their writing.

(3-6) Have students write a short report about sheep. Have them mention things they had already known and things that they learned.

Extension

Contact your county extension agent or high school ag science teacher to find out if there are any sheep raised close to your school. If so, ask the producer to bring some sheep to your school so that your class can see some real sheep. They could leave them in the trailer as long as your students could see them. You may want to ask if they could demonstrate the shearing of a lamb for your students to observe, also.

Have upper grades research the different breeds of sheep mentioned using the internet and other resources. Have them make a poster showing the information they found.
Sheep Organizations and Information

Texas Sheep and Goat Raisers’ Association
P O Box 2290
San Angelo, TX  76902
(915)655-7388
(915)655-2255  Fax Line
They provide information and Elementary and Secondary level curriculum.
www.tsgra.com - They have a lot of links that will even take you to more links.

American Sheep Industry Association
6911 South Yosemite St
Englewood, CO  80112-1414
(303)771-3500
www.sheepusa.org

Pendleton Woolen Mills
P O Box 3030
Portland, OR  97208
(503)226-4801
(503)273-2599
Video to loan titled:  From Fleece to Fashion:  The Lamb’s Tale

Material:  Nonfiction books about sheep and fiction books with sheep as characters
Paper
Pencils
Map of Texas showing the counties
Butcher paper
Transparencies

Equipment:  Computer with Internet capability and Overhead Projector
Learning About Sheep

Sheep have been used for food and wool since Biblical times. Today, sheep and wool are important to people in countries all around the world. Sheep provided clothing to early civilizations, which allowed them to explore and inhabit colder regions.

Female sheep are called ewes, and male sheep are called rams. Baby sheep are called lambs. Lambs can stand soon after they are born and quickly start drinking the warm milk from their mothers. The lamb quickly learns who its mother is by smell and the sound of its mother’s bleat. The smell of the ewe’s milk passing through the lamb lets the mother know which lamb is hers. Lambs stay with their mothers for about 5 months. At 6 months of age a lamb is well grown and will weigh between 110 and 120 pounds.

Sheep live in groups called flocks. Ranchers move the flocks from place to place so they do not damage the land. The sheep feed on forage that grows again next year. Many times this forage is made up of weeds that would hurt the environment if the sheep were not there to eat them. Sheep help to fertilize the range, control unwanted vegetation, and help capture rainfall in the little hollows they make in dry soil. These depressions also help to provide shelter for growing seeds.

Sheep must be protected from predators. Coyotes, wolves, mountain lions, bobcats, foxes, and other types of predators like sheep because they do not have a way to protect themselves and are easy to catch. Guard dogs are often used to protect the sheep. They grow up with the sheep and “patrol” the pastures to protect them from harm. Working sheep dogs are the rancher’s best helper. They gather the sheep from pastures and rough, steep rocky areas that are hard for the rancher to get to.

There are over 150 different kinds of sheep. Some sheep are raised mostly for meat. Lamb is one of the most nutritious and flavorful types of meat. The meat from an adult sheep is called mutton. Other sheep are raised mostly for the quality of their wool.
The main breeds of sheep in Texas:
This information can be seen with pictures at the Texas Sheep and Goat Raisers' Association website at www.tsgra.com

Fine wool

1. Rambouillet - large white-faced with wool on the legs. It is fast growing, adapts well to various climatic and forage conditions. It is considered one of the best for breeding year round and produces a high quality, fine-wool fleece.

2. Delaine-Merino - relatively smooth-bodied, medium sized, with a white face and wool on the legs. It is hardy, adapted for unassisted lambing, produces well in extremely warm climates under relatively poor feeding conditions. It breeds year round and produces a high quality fine-wool fleece.

3. Columbia - hardy, good mothers with good milking ability. They are large with white faces and wool on legs. They are useful in crossbred market lamb production. They have heavy, medium wool fleeces with good length and no black fibers.

Medium Wool

1. Suffolk - highly adapted to farm flock production. It is crossbred with fine wool sheep for market lamb production. The Suffolk is large with a bare, black face and bare, black legs. They are hardy, have excellent growth rates, milking ability, and lambing ability. They adapt well to heat and cold, and produce a high quality meat carcass and a medium, easy-to-spin wool.

2. Hampshire - a popular meat breed. It is crossbred with fine wool sheep for market lamb production. Hampshires are large with black faces and wool on the legs. They adapt well to varied and wet climates. They are used in farm flock production, are good in maternal instincts and milking ability. They produce an excellent carcass and a medium, easy-to-spin wool.

3. Southdown - best suited to farm flock production. Small to medium sized with gray to mouse-brown face and wool on legs. Southdowns are an early maturing breed that has good lambing ability and is crossed to produce a meaty lamb carcass. They are adaptable to varied and wet climates and produce a medium, easy-to-spin wool.

Adapted from "Learning About Sheep," Texas Sheep and Goat Raisers' Association
Match the definition to the correct word.

1. _____a female sheep       a. wool
2. _____the group sheep live in
   b. lamb
   c. predator
3. _____a baby sheep
   d. shearing
4. _____a male sheep
   e. shepherd
5. _____the sound a sheep makes
   f. bleat
6. _____animal that kills sheep
   g. ewe
   h. ram
7. _____removing the wool
   i. flock
8. _____fiber from the sheep
9. _____person who takes care of the sheep
Activity 3

Name _________________________

Sheep Vocabulary (3-6)

Match the definition to the correct word.

1. _____a female sheep
2. _____the group sheep live in
3. _____a baby sheep
4. _____a male sheep
5. _____the sound a sheep makes
6. _____animal that kills sheep
7. _____removing the wool
8. _____fiber from the sheep
9. _____person who takes care of the sheep
10. _____meat from an adult sheep
11. _____where the sheep roam
12. _____coat of wool
13. _____what sheep feed on

a. wool  
b. lamb  
c. predator  
d. shearing  
e. shepherd  
f. mutton  
g. range  
h. ewe  
i. forage  
j. flock  
k. fleece  
l. bleat  
m. ram
**Sheep Breeds Key**

**Fine Wool Breeds**
- **Rambouillet** - White face and legs. Known for high quality wool.
- **Delaine-Merino** - White face and legs. High quality wool.
- **Columbia** - White face and legs. Produce heavy fleeces with no black fibers.

**Medium Wool Breeds**
- **Suffolk** - Bare, black face and legs. Produces high quality meat and easy-to-spin wool.
- **Hampshire** - Fastest growing breed. Black faces with wool on the legs. Popular meat breed.
- **Southdown** - Medium to small size with gray to mouse-brown face and wool on the legs. Produces meaty lambs and easy-to-spin wool.
Sheep and Wool Fact Sheet

*By-products from sheep fat include:

1. medicines
2. chewing gum
3. crayons
4. cosmetics
5. shampoo
6. paints
7. tires
8. antifreeze

Top five counties in lamb production:

1. Val Verde
2. Crockett
3. Tom Green
4. Pecos
5. Concho

Top five counties in wool production

1. Crockett
2. Tom Green
3. Pecos
4. Val Verde
5. Schleicher

*The Sheep and Goats brochure, available from the Texas Farm Bureau, is packed with information and a detailed listing of the by-products of sheep and goats.
Activity 5

**Sheep in the United States**

Sheep breeds fall into two major types, fine wool and medium wool. List the different breeds of each type in the correct column. Use the website for the Texas Sheep and Goat Raisers’ Association (www.tsgra.com) to learn about the six major breeds of sheep raised in Texas. Write a descriptive paragraph telling the characteristics of each breed, where each breed originated, and what its primary uses are. Find pictures of the different breeds from the internet or other sources.

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<th>Fine Wool Breeds</th>
<th>Medium Wool Breeds</th>
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Fine wool breed

Medium wool breed

Fine Wool Breeds

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Medium Wool Breeds

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Sheep provide us with wool for clothing. The sheep is sheared and the wool is made into yarn. The yarn is used for sweaters, skirts, and other wool clothing.

Shearing is usually done in the spring of the year. The sheep shearer uses electric hand clippers. These are similar to very large barber’s shears.

A skilled shearer can shear a sheep in about five minutes. He uses long, smooth strokes and cuts close to the sheep’s skin. This means the fibers will be long and the fleece, or sheep’s wool, will be of good quality.

The shearer usually can shear the fleece in one piece. Then the fleece is rolled and tied. It is placed in a bag with other fleeces. This bag can weigh between 200 and 400 pounds. The bag is labeled with the sheep ranch owner’s name before it is sold.

American Wool Council
Wool Education Center
Shearing Sheep

Photos Courtesy of Texas Sheep and Goat Raisers’ Association and Ranch Publishing
Shearing Sheep

1. Sheep are sheared and the fleece is made into_______.
   0 yarn
   0 skirts
   0 sweaters
   0 cotton

2. Sheep would be sheared in the month of ________.
   0 December
   0 April
   0 August
   0 July

3. The electric hand clippers used by the sheep shearer are like
   ________.
   0 large scissors
   0 trimmers
   0 small scissors
   0 large barber’s shears
4. If the sheep shearer cuts the fleece in long fibers, it will _______.
   0 be better wool.
   0 be better sheep's skin.
   0 be better quality.
   0 be bigger.

5. The shearer can usually shear the sheep's fleece in how many pieces?
   0 two
   0 three
   0 four
   0 one

6. Smooth means ________.
   0 crooked
   0 even
   0 quick
   0 nice
Shearing Sheep

1. Sheep provide what fabric?
   - 0 cotton
   - 0 wool
   - 0 rayon
   - 0 cloth

2. What is another name for the sheep’s wool?
   - 0 woolen
   - 0 flee
   - 0 fleece
   - 0 sheep skin

3. What season of the year is shearing done?
   - 0 winter
   - 0 fall
   - 0 summer
   - 0 spring

4. What equipment does the sheep shearer use to cut the fleece?
   - 0 sheep cutters
   - 0 electric hand clippers
   - 0 electric trimmers
   - 0 barber’s shears
5. How long would it take for a skilled sheep shearer to shear 3 sheep?
   0  5 minutes
   0  10 minutes
   0  15 minutes
   0  115 minutes

6. What is the main idea of this story?
   0  The sheep shearer cuts the fleeces using electric clippers.
   0  The sheep shearer cuts only good quality fleece.
   0  The sheep shearer must work fast.
   0  Sheep shearers must be strong to lift the 200 pound bags.

7. What word in the last paragraph means “to be marked”?
   0  sheared
   0  bagged
   0  named
   0  labeled
VOCABULARY
(K-2)

1. g
2. i
3. b
4. h
5. f
6. c
7. d
8. a
9. e

(3-6)

1. h
2. j
3. b
4. m
5. l
6. c
7. d
8. a
9. e
10. f
11. g
12. k
13. i

ASSESSMENT
Shearing Sheep (1-3)

1. yarn
2. April
3. large barber’s shears
4. be better quality
5. one
6. even

Shearing Sheep (4-6)

1. wool
2. fleece
3. spring
4. electric hand clippers
5. 15 minutes
6. The sheep shearer cuts the fleeces using electric clippers.
7. labeled