The field tested sixth grade instructional unit is designed to acquaint the student with a variety of occupations found in the area of ranching, using activities and concepts from several academic areas. The unit takes approximately 28 and one-half hours of teaching time and involves large and small group and individual work. A list of required materials is included. The teacher is presented with suggested performance objectives, recommended and alternate learning activities, student evaluation methods, and various enrichment activities. A class rodeo is suggested as a culminating activity. A list of resource materials and student worksheets are also included. (BP)
Studies over the past five years within Arizona show parents as the most influential sources of the student's occupational and educational choices. Because of parent influence and the community interest in career education, it is strongly recommended that the content of this unit be reviewed with parent advisory groups.
This instructional unit, which relates to the Arizona Career Education outcomes, has been field tested in the State of Arizona. A detailed report of the field test results is available upon request.

This unit is a suggested procedure. Future users of the unit should review the unit in its entirety paying particular attention to the content of each activity and noting when, during their teaching year, it is best to be taught. Feel free to adapt it to meet the needs of your particular students and situation.

The following are suggestions made by the field test teachers:

1. The reports and newspaper activities were not particularly successful.
2. Develop some more related careers.
3. It may be too easy for some sixth graders.
CATTLE RANCHING

GRADE LEVEL: 6th Grade

DESCRIPTION OF UNIT:

This unit is designed to acquaint the student with a variety of the occupations found in the area of ranching. The unit stresses the various interrelations of occupations found in this area and the interdependence of all occupations in this area. Activities related to and using various concepts from a number of subject areas including math, science, reading, social studies, and writing are used to convey these learnings.

GOAL STATEMENT:

1.0 The goal of this unit is to make the student more aware of the various occupations in the ranching area, the relationship between the tasks performed in this field and those subjects studied in school, and to familiarize the student with various terminology associated with the field.

APPROXIMATE TEACHING TIME: 28 hours, 30 minutes

SUGGESTED GROUPINGS: Large groups, small groups, and individual work.

MATERIALS REQUIRED:

1. Films (assorted films available in the locality)
2. Filmstrips (assorted filmstrips available in the locality)
3. Paper
4. Crayons
5. Colored pencils
6. Encyclopedias
7. Library books
8. A scale
9. Paper sacks
10. Sand or gravel
11. 1 cup measuring cups (5-10)
12. Magazine and newspaper clippings
13. Magazine and newspapers
14. Dictionaries
15. Watercolors
16. Chalk

PERFORMANCE OBJECTIVE:

1.1 When given a list of 26 career possibilities, the learner will identify those careers related to ranching with an 80% accuracy.
ACTIVITIES:

1.1.1 The teacher should procure a film which deals with ranching and ranching-related occupations. A number of films are suggested in the media list at the end of the unit, but which film is shown can and will vary with the local availability of the films. The students should be instructed to keep a running list of the occupations which they see in the film and notes about what each involves. Students should also be asked to list any "ranching-related" occupations they see in the film, their relationship and what they involve.

ALTERNATE ACTIVITIES: To be used if no appropriate films are available, which will accomplish the same objectives.

1. Filmstrips may be shown on the same theme and the students can observe the same types of things.

2. Students can be instructed to watch an appropriate television program or movie dealing with ranch life or ranching. The same type of list can be compiled in conjunction with this activity as well.

1.1.2 The students will draw pictures of individuals who work in ranching-related occupations. At the bottom of each picture they will include a description of the duties and responsibilities involved in that occupation. This description may be derived from the film viewing or an independent research in encyclopedias or other references.

1.1.3 Each student will choose one of the occupations involved in the pictures they drew and prepare themselves to portray themselves to the class. This portrayal should consist of the description of the duties, benefits and working conditions involved in that occupation as based on research done by the student in encyclopedias, books on the subject or informal interviews with members of the profession. The student should not tell the class his chosen occupation but rather allow them to attempt to ascertain it solely on the basis of his description. The roles to be portrayed using an, "I am," "I do," "I must" format should include at least a banker, a person involved in related transportation, an auctioneer, a livestock inspector, a seller, a buyer, a rancher, a feed lot worker, and any other occupations that may be related to ranch work. As many different occupations as possible should be portrayed. Students may use dress props if they wish.

The class should be formed into 3-4 independent teams for this activity. Each student who portrays his profession well enough to the class to enable them to name the profession earns 1 point for their team. The first student not on his team to correctly ascertain the occupation also receives 1 point for his team. The team
with the most points after all students have made their presentations should be declared the "winners."

1.1.4 A program of at least two resource speakers and if possible more should be presented to the class. These speakers should be asked to emphasize the various facets of their jobs, advantages and disadvantages and should place special emphasis on the various other occupations they must come in contact with in the course of their profession. Time should be allowed for the students to ask individual questions. Possible professions to invite are: A Veterinarian, a Farrier (horseshoer), a rancher's wife, a secretary at a feedlot, or a western clothing salesman.

ALTERNATE ACTIVITIES: These activities should be utilized only if it proves impossible to obtain the resource speakers specified in the main activity.

1. A film on ranching may be substituted for the resource speakers. This film may be chosen from the list at the end of the unit or from among others that are locally available. If a film is used, students should be given special instructions to take special note of advantages and disadvantages of the occupation, the various tasks involved, and the various other occupations that ranchers come in regular contact with.

2. Students may view filmstrips on ranching. Attention should be paid to the same things as stressed in Alternate 1.

1.1.5 Worksheet 1.1.5 should be duplicated and handed out to the class at this point in the unit. Teacher should first ask the students to underline all occupations they know something about. After the students have had a chance to underline those they know about, individual students should be given the opportunity to raise questions about those that they have not underlined. Students or teacher should then aid in clarifying or explaining.

1.1.6 Class as a whole will then discuss interrelationships between various occupations as they occur in ranching. Possible discussion motivators based on Worksheet 1.1.5 follow:

a. What do all those arrows on your Worksheet mean?

b. What does the word transportation mean and why is it important to ranchers?

c. Why are saddlemakers important to ranchers?

d. Why are ranchers important to saddlemakers?

e. What other occupations can you think of that depend on ranchers or that ranchers depend upon?

and so on....
1.1.7 The student will be taken on a field trip to a livestock auction. Each student should be asked to keep a diary of the different occupations he observes there.

ALTERNATIVE ACTIVITIES:

1. If the field trip cannot be taken for some reason, it might be possible to invite one or more workers from a livestock auction to come and speak to the class on the various occupations contained in a livestock auction. Speakers should be asked to stress how the different occupations depend on each other.

2. A film or filmstrip containing information on livestock auctions might be shown supplemented by class discussion.

3. All students or a selected group of students might be asked to do independent research in books and encyclopedias on livestock auctions and the jobs which they involve. If a select group does the research, they should report to the class on their findings.

1.1.8 After the field trip or alternate activity, the students should be asked to contribute the jobs they observed on the field trip or learned about to a class discussion. The class should be asked to discuss the relation of each new suggestion to all previous contributions in a chain building system.

EXAMPLE: R = the relationship to

```
  MANAGER
    R
  RANCHER
    R R R
  SECRETARY
    R R
  AUCTIONEER
      R

  4th Suggestion ←
  3rd Suggestion ←
  2nd Suggestion ←
  1st Suggestion ←
```

EVALUATION:

1.1.1.1 The evaluation of the performance objectives will be made by pre and post testing using a testing example such as this:
Mark an X beside those careers related to the ranching industry.

A. TRUCK DRIVER
B. CORRAL BUILDER
C. AIRPLANE DESIGNER
D. BEAUTICIAN
E. AUCTIONEER
F. FERTILIZER SALESMAN
G. JANITOR
H. SECRETARY
I. VETERINARIAN
J. ACTOR
K. ASTRONAUT
L. HORSESHOER
M. STEWARDESS
N. WELDING CONSULTANT
O. COLA BOTTLER
P. TV REPAIRMAN
Q. WESTERN CLOTHING SALESMAN
R. SADDLEMAKER
S. PAVING CONTRACTOR
T. COWBOY
U. PHARMACIST
V. COMPOSER
W. PEDIATRICIAN
X. FOREMAN
Y. FIREMAN
Z. ARCHITECT


PERFORMANCE OBJECTIVE:

1.2 When given a list of skills needed in ranch related work, and a list of subjects taught in the classroom, the learner will be able to match skill needed with subject area with 80% accuracy.

ACTIVITIES:

1.2.1 Each student should be asked to bring to class a minimum of one article related to ranching in some way. These clippings can be taken from newspapers or general periodicals. Students may be allowed to bring more clippings if they wish.

Each student should share his article with the class. After each student finishes sharing his article, the class should be asked to categorize each article in the area it most closely relates to. A list of possible categories based on school subjects could be:

A. Reading
B. Math
C. Science
D. Social Studies
E. Language
F. Health

This entire activity should be geared to introducing the students to the idea that most school subjects really do have applications in the real world and the occupation of ranching specifically. All of the classifications the students make should take this idea into consideration.
These categories should be placed on a bulletin board and then the articles should be pinned under the appropriate category. Time should be taken to discuss the reasons for placing each article in a given category. The bulletin board thus constructed, should be left up for a week or two and students should be allowed to add additional articles as they find them.

1.2.2 The learner will do a weight reading activity using a scale. The learner will place various size packages labeled hay, grain, steer, etc., on the scale and then call off the weight as measured to a recorder in pounds and ounces. The weigher-recorder team will then total the various amounts weighed. After teams, comprising of all members of the class, have weighed the subject items, the teacher should weigh all items keeping a running tally on the board. The teams coming closest or having the exact correct weight should then receive class recognition. If necessary, a common bathroom scale may be used for this activity. If so, measure to the nearest pound.

1.2.3 The learners will participate in a class discussion covering the following topics:

A. What professions that you saw in our earlier activities would need to do the same types of things you did today?

B. In what school subjects did you learn the things you used in the activity?

C. How do you suppose school and the things that happen in school are important to someone who wants to become a rancher?

1.2.4 The students will each be given a sack containing 11 cups of sand or gravel and a 1 cup measuring cup. Students will be told to pretend that this sack contains oats with which to feed a horse. A horse will be assumed to eat 1 cup of oats a day for the purpose of this activity. Students are asked to determine the number of days that this sack's contents will feed a horse and record their answer. Each student may be asked to bring their own measuring cup from home for this activity.

1.2.5 Students will participate in a discussion of the school subjects they used in the above activity and a speculative discussion of the different ways a rancher might need to use this type of measuring.

1.2.6 Taking the role of a rancher inquiring into the price of various articles necessary to ranching and/or various current market prices for ranching products, each learner will write a business letter to a supplier or buyer of ranching commodities inquiring into current prices for articles of his choice. Replies to these letters will be shared with the class.
1.2.7 The class should be divided into groups of 3-5 students. Each of these groups should choose a ranch-related commodity and keep a daily log of the rise and fall of its price and the wholesale and/or retail market. This information may be gathered from the local newspapers livestock market report, or grocery ads. At the end of the week, each group should report to the class on the observations they have made. Each group should also be asked to compute the average price of their commodity over the one-week period and include this in their presentation. The teacher should attempt to clarify to the students that ranchers must make extensive use of mathematics in their business and must make various decisions with regard to buying and selling livestock based on various mathematical computations.

1.2.8 The learner will be taken on a field trip to a feedlot while branding, dehorning, and deticking are in process. There the student will be made acquainted with the duties and skills of a mill foreman, dietician, sick cattle doctor, feeder, and yard cowboy. Learners should be asked to make note of the ways these peoples activities relate to the school subjects.

ALTERNATIVE ACTIVITIES:

1. Students can be asked to do independent research in encyclopedias, reference books, periodicals and Occupational kits and labs. They should be asked to do research on two or three ranching-related occupations. Special reference in this research should be paid to educational requirements for each occupation and what relationships there are between the occupations and the various things studied in school.

2. Students might view a film or filmstrips on ranching. They should be asked to keep a list of the school-related skills they see being used. A discussion should be held after viewing in which the learners discuss these school-related skills.

1.2.9 The class should be divided into groups of 2-3 students. Each group should then be asked to choose some topic related to ranching and prepare a report on this topic to present to the class. Some possible topics are:

a. Types of cattle
b. Cattle breeding
c. History of ranching
d. Types of horses
e. Ranching equipment
f. Meat processing
g. Types and history of brands
h. Spanish-American contributions to the industry
i. Famous black cowboys

and so on....
Information for these reports should be obtained from encyclopedias, library books, periodicals, and newspaper articles.

Students should then present these reports to the class. Written copies of these reports should be combined into a book and made available for the students to read at their leisure.

1.2.10 A culminating class discussion will be held using the preceding activities as a basis. The teacher should review each activity with the class and then solicit a set of responses from the class as to how each ranching-oriented activity related to their work in school. As a culmination, the class should be asked to discuss the following statement: "School is not important to ranchers because they will never use anything they learn in school!"

EVALUATION:

1.2.1.1 The teacher should administer the evaluation sheet provided. 100% of the students should be able to complete this evaluation with 80% accuracy in order to fulfill the objective.

PERFORMANCE OBJECTIVE:

1.3 When given a list of words used in a ranching business vocabulary, the learner will be able to say and define the terms with 80% accuracy.

ACTIVITIES:

1.3.1 Each learner will make a list of at least 15 ranch vocabulary words and then use the dictionary, previous knowledge, or informal interviews with resource people to determine their definition and, if possible, their origin. Some possible unique ranching terms that might be suggested to the class are: Ladago, corral, chaps, tack, hot shot, earmark, steer, Quarterhorse, loading chute, dehorn, brand, doggie, squeeze chute, heifer, catch pen, cowboy, lasso, Stenson, spurs. At the end of this activity, Student Sheet #1.3.1 can be handed out to the students and they can add their own terms to those given.

1.3.2 Each student contributes only words he has discovered to a class list of words and definitions which the teacher compiles on the blackboard and later transfers to a ditto sheet which is distributed to each student.

1.3.3 Students draw pictures illustrating at least 5 of the words from the class list using watercolor and chalk. These pictures are displayed on a "Ranching Words" bulletin board by the teacher.
1.3.4 The learner will be taken on a field trip to a local ranch operation where he will become acquainted with the use of tags to identify registered cattle and the use of various ranching equipment including the branding iron. Students will make a diary containing unusual or interesting words they hear while on the trip. If possible, they should include the inferred meaning of a description of the item so referred to.

This activity is not absolutely essential to the attainment of the objective, but it is highly beneficial. If for some reason you are unable to take this field trip, you may wish to carry out the same activity using a film or filmstrip, a resource speaker, or by assigning the students additional research.

1.3.5 The learners may each choose one of the following activities to pursue in groups of not more than 4. After completion of the activity, each group will report to the class and display their product. The teacher is cautioned to make sure each of the following categories has at least one group involved in it:

a. The learner will build a scaled diorama of a cattle or sheep ranching operation. This will include housing, corrals, feeding pens, barns, grain and hay storage, calf or lamb pens, horse stalls, and any farming that is done to supplement the hay and grain supply. Grain farming, fence building, doctoring, branding, dehorning, and or shearing, and other aspects of ranch work will be depicted. Each component must be clearly labelled.

b. The learner will dress a doll or draw a person in western attire. He will then label each piece and explain its use.

c. After doing research in the encyclopedia on the subject the learners will make an individual branding iron out of clothes hanger wire. They will be expected to ascertain through their research the necessary design.

d. A group of students may choose to make a mural showing the travels and life of a steer from calf to grocery store meat market.

EVALUATION:

1.3.1.1 To evaluate the achievement of Objective 1.3, the teacher should use the class-derived list and the samples included here as a basis. The teacher should place a number of the class-discovered terms on flash cards. During reading periods or other times of the teacher's choice, the teacher should individually quiz each student on 5-10 of these words. Each student should be able to pronounce 80% of the words and give a reasonable definition of the words. The teacher should keep a record of the number of students achieving this Objective to measure total class attainment of the Objective.
DEFINE:

EARMARK (a mark of identification originally on the ear of an animal).

STEER (a male bovine animal).

QUARTERHORSE (an alert cobby muscular horse developed for great endurance under the saddle.)

CHAPS (leather leggings resembling trousers without a seat that are worn especially by western ranch hands).

DEHORN (to deprive of or to prevent the growth of horns).

CORRAL (a pen or enclosure for confining or capturing livestock).

BRAND (a mark made by burning with a hot iron to attest manufacture or quality or to designate ownership).

DOGIE (a motherless calf in a range herd).

HEIFER (a young cow)

COWBOY (mounted cattle ranch hand).
ENRICHMENT ACTIVITIES:

The learner will produce a piece of leathercraft work.

The learner will make a chart of famous brands, the names of the ranches they come from and the meaning of each brand.

The learner will prepare a bulletin board presenting western ballads, folklore, and their work.

The learner will do a creative writing assignment on this subject:

You are a cowboy of today working in a modern feeding operation, a time machine has transported you back to the great cattle ranches of the 1800's. Describe the differences between your life in the modern ranching industry in that time. What kinds of work did you do? What did you do for fun? What things do you have to know to keep your job (then and now)? What kinds of people did you meet? What was your pay (then and now)?

The learner will read the story, AND NOW MIGUEL, A Newbury Award Winner, describing the life of a boy who lives on a New Mexican sheep ranch.

The learner will cook biscuits in a Dutch Oven using a sour dough recipe.

CLUMINATING ACTIVITY: CLASS RODEO

BARREL RACING

One at a time, children race around three points in a figure 8 pattern without knocking over props and back to finish line. Best time wins.

KEY HOLE RACE

The child must run into keyhole, turn, pick up object and run out to finish line without crossing over lines. Best time wins. Size of keyhole will vary with size and coordination of class.
BOOT RACE

One of each racer's shoes is left in a circle at the end of the field. The children race to circle, put on shoe and race back to finish line. First to cross line with shoe on is winner.

TARGET ROPING (A COUPLE OF LONG ROPES ARE NEEDED AND A CHAIR)

Each student receives three chances to rope the chair. Most chairs roped wins.

TEAM ROPING (FOOT LONG PIECE OF CLOTH, ROPE, OR TWINE ARE NEEDED)

One (1) person, playing calf role, runs past start line. After he passes second line (about 5 feet from start) the "Header" then starts and tries to catch the calf. "Header" then starts and tries to catch the calf. "Heeler" ties feet of calf together in one single tie. Best time wins.

BUCKING BARRELL

Need four post, five long pieces of rope, one barrell. One person rides while everyone pulls on connecting ropes. Teacher supervision is needed, so that size and coordination will be matched with ride.
RESOURCE MATERIAL

BOOKS:

ENCHANTMENT OF AMERICAN SERIES - Allen Carpenter - Children's Press. KANSAS - NEBRASKA - MONTANA - WYOMING - COLORADO - TEXAS - ARIZONA - CALIFORNIA

COWBOYS AND CATTLE DRIVES - Joseph Chadwick - Hawthorn

UP THE TRAIL FROM TEXAS - J. Frank Dobie - Random House

COWBOYS AND CATTLE DRIVES - Edith McCall - Children's Press

THE COWBOY - Vincent Paul Rennert - Crowell - Collier


ARIZONA: ITS PEOPLE AND RESOURCES - Edited by Jack L. Cross - University of Arizona Press

THE MAKING OF ARIZONA - Dorothy F. Robinson - ASU Press


ECHOES OF THE PAST - Robert C. Stevens - Yavapai - Cowbelles

CALIFORNIA AND THE WEST - Edited by John W. Reith - Fidelco Co.

LAST OF THE GREAT OUTLAWS - Homer Gray - Dwell, Sloan, and Pearce

WESTERN OUTLAWS - Vincent Paul Rennert - Cowell - Collier

FILMSTRIPS:

A VISIT TO A RANCH

FILMS:

CATTLE MAN: A RANCHER'S STORY
HOME ON THE RANGE
CATTLE AND THE CORNBELT
THE COW
MEAT: FROM RANGE TO MARKET
EXPEDITION ARIZONA: THE BAWLING HERDS
SANTA FE TRAIL

13 018
MAGAZINES:

HOOF AND HORDNS
RODEO SPORTSMAN
NEW MEXICO CATTLEMAN
FARM AND RANCH
PINAL COUNTY BULLETINS
ARIZONA HIGHWAYS
NATIONAL GEOGRAPHIC

The records and filmstrips mentioned here are available from Records Sales, 4917 W. 147 Street, Hawthorne, California 90250.

FILMSTRIPS:

PECOS BILL, From series: American Legendary Heroes
Producers: EBF films $6.50, To be used for literature

IMPORTING OUR GRASSLANDS, From series: Conserving Our Natural Resources, Producers: EFT Films $6.50, to be used for science

RECORDS AND FILMSTRIPS:

RODEO RECORD $5.98, with film strip $6.50.

RECORDS:

COOL WATER 1-12" 33 1/3 RPM record, $5.98. Recorded by Sons of the Pioneers. Songs included are: Tumbling Tumble Weeds, Red River Valley, Timber Trail, Along the Santa Fe Trail, Yellow Rose of Texas, Cool Water, Cowboy's Dream, The Last Round-up, etc.

COWBOY BALLARDS 1-10" 33 1/3 RPM record, $4.98. Recorded by Cisco Houston. Songs included are: Chisholm Trail, Old Paint, Diamond Joe, Devil's Trail, Joe the Wrangler, Dying Cowboy. Text included. Recommended for social studies correlation.
RANCHERS ARE DEPENDENT UPON MANY OTHERS!!!

Buyers (From raisers to packing house to retailers)

Auctioneers (auction from range to feedlot-auction to packing house)
- Auctioneers
- Secretaries
- Bookkeepers
- Totmen

Livestock Inspectors

Transporters
- Air
- Rail
- Truck

Feedlot Workers (custom feeding)

Blacksmiths (horse shoeing)

Saddle Makers

Horse Trainers

Sales Personnel
- Medicine
- Tack
- Machinery
- Clothing
- Feed

Packinghouse workers

Butchers

Product salesmen

Cowboys

Construction workers

Welders

Nutritioists

Veterinarians

Brand Contractors

Bankers

and so on......
EVALUATION 1.2.1.1

Match the ranching-related skill on the left to the related school subject on the right. You may use the school subject more than once.

1. Scale reading
   A. Health
2. Seller to buyer communication
   B. Reading
3. Livestock market report reading
   C. Math
4. Dehorning
   D. Science
5. Diet of livestock
   E. Language Arts
6. Cattle breeding
   F. Social Studies
7. Computing the cost of feed
8. Writing bills of sale
9. Computing feed per animal
10. Knowing where to find the best range.

KEY: 1-C, 2-E, 3-B, 4-D, 5-A, 6-D, 7-C, 8-E, 9-C, 10-F.

Teachers may include more class-derived items if they desire.
WORKSHEET 1.3.1

RANCHING TERMS

Below are a few of the terms involved in ranching along with their definitions. See how many more of you own you can add.

EARMARK - A mark of identification of ownership originally on the ear of the animal.

STEER - A male bovien animal.

QUARTERHORSE - An alert cobby muscular horse developed for great endurance under the saddle.

CH'PS - Leather leggings resembling trousers without a seat that are worn by western ranch hands.

DEHORN - To remove or prevent the growth of horns.

CORRAL - A pen for confining or capturing animals.

BRAND - A mark made on an animal by burning the skin with a hot iron to designate ownership.

DOGIE - A motherless calf in a range herd.

HEIFER - A young cow.

COWBOY - Mounted cattle ranch hand.

NOW SEE HOW MANY MORE OF YOUR OWN YOU CAN ADD:

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
