



## Careers in Action

## TEKStar Lesson Summary

Lesson Title Texas Medicine, Texas Style

Grade Level 7th

Course Number SS 113.23

Course Name Social Studies, Seventh Grade

### Keywords

pharmacist, physician, small pox, Venn diagram, resume

### SE Course

SS 113.23:7.9 (A)(B)(C)

### SE Cross Curricular

HE 115.23:7.4 (C), 7.12 (A)(D)(G)  
SC 112.23:7.2 (A)(D), 7.3 (A)(F)  
ELA 110.23:7.1 (A)(C)(D), 7.5 (B), 7.8 (B), 7.10 (B)(G)(H)(L), 7.11 (A)(B)(D),  
7.13 (A)(B)(D)(F)(G)(H)(I), 7.15 (A)(C)  
Career Investigation 127.2:8 (B), 4 (A)

### TAAS

SS 4:8.11 (A)(B)(C), 6:8.24 (D), 8:8.30 (B)  
RE 2:8.10 (E)(F), 8:13 (D)

### TAAS II/TAKS

SS 2:8.11 (C), 3: 8.24 (D), 5:8.30 (A)(B)(C)(D)(F)  
SC 3: Bio (4) (C)  
WR 1:7.15 (A)(B)(C)(H)

## Lesson Summary

TEKS, TAAS/TAKS, and personal skills valued by educators and employers are taught as students experience the career area of Health Science Technology.

In this lesson, students will learn about medicine and medical treatment beginning with Native Americans leading to the medical field of today in Texas. They will have the opportunity to theorize what medical treatment might be like in the future. They will research careers in Health Science and write their own resume for an advertised job. Finally they will use their knowledge of Texas and health careers to create a treatment for a fictitious Texas rash.

Arrangements are made with the Tech Prep office at (956) 364-4548, Fax (956) 364-5143 or by using Tech Prep Inc.'s website (<http://techprepRGV.com>) for a speaker, mentor, and/or field trip. These experiences enable students to investigate actual careers in action.

**This lesson was developed as part of a *Careers in Action* project led by Tech Prep of the Rio Grande Valley, Inc., and funded with School-to-Careers grant funding through the Texas Education Agency and the Texas Workforce Commission in Summer 2000. Following a pilot project by Tech Prep Support Teams, revisions were made in the Spring of 2002.**

**This lesson has been endorsed by Jose Vasquez, Human Resource Director, Knapp Medical Center, Weslaco, Texas.**

## Evidence of Success

Students will apply their knowledge of Texas geography in the role of a pharmacist or physician to create a treatment for a fictitious Texan rash.

### Personalize the Learning

Ask students to think about a time when they were sick with a bad cold accompanied by a sore throat and cough. Ask students to raise their hand if they took medicine to help “treat” their symptoms. Most students probably did take some form of medication such as throat and cough lozenges or even an antihistamine. Write the following words on the board/overhead and ask students if they took any of the following to treat their cold: Chestnut, Wild Ginger, or Elm Bark Tea. More than likely they did not but Native Americans did. Yes, Native Americans also suffered from colds, but they used plants from nature to treat their symptoms.

Chestnut was used to treat coughs, Wild Ginger for colds, and Elm Bark tea was used for sore throats. Additional remedies used by Native Americans:

Snake bite-Red Elm	Skin Trouble- Black Willow
Chills- Snake Roots	Vomiting- Beech Bark Tea
Boils- Wild Grapes	Hives- Ground Ivy (stem and leaves) Tea
Burns- Oak Bark	Heartburn- Elder (stalk and leaves) Tea
Warts- Mild Weed	Constipation- Seeds of Blatter Nut
Toothaches- Prickley Ash	Asthma- Mints
Blood Remedies- Sassafras	Bee Sting, Sores- Mullen, Poultice
Earaches- Tobacco Smoke	Hiccoughs- Wild Cherry Tea
Jaintice- Wild Fruit	Sore Eyes- Yellow Root

Books and pictures may be used to visually enhance this focus activity such as The Roots of North American Medicine by Jean Wyatt, or at this wonderful visual website <http://www.nativeamericanhealing.com>.

So we could say that the early Native Americans, as well as even today, were their own pharmacists. Today, a pharmacist is a person who dispenses medication prescribed by physicians. A great website that provides occupational information is the Occupational Outlook Handbook at <http://www.stats.bls.gov/oco/ocos079.htm>.)

Ask students to print and save the job description for a pharmacist at the previously mentioned website. The information will be used in another activity.

### Relevance

After an internship with Knapp Medical Center in Weslaco, Texas, it is evident that the following behaviors, knowledge, and skills are essential. Students will relate their own medical treatment for sickness they have experienced to that which was treated naturally years ago by Native Americans.



Know It  
Do It  
Think It

Activity 1

Careers in Action

TEKStar Activity Summary

Lesson Title Pharmacists and Physicians of Yesterday, Today, and Tomorrow

Activity Description

Time Frame 60 min

Discuss with students that Native Americans created their own treatments for a variety of health problems by using what they had available in nature. However, as Native Americans came into contact with different explorers and immigrants, they quickly learned the hard way about different diseases they didn't have treatments for. The end result; thousands of Native Americans died across the United States and Texas. For example, in the mid 1800's, a deadly disease called Small Pox ravaged across the United States and Texas. The problem was that scientist, doctors, and just about everybody else were just beginning to learn about the disease. So we could say that everyone at that time was their own physician. (A physician is a person that examines and provides diagnosis of illnesses and prescribes and administers treatment for injuries or diseases. Again, ask students to print and read the job description for a physician from <http://www.stats.bls.gov/oco/cos079.htm>.)

1. With a partner, have students briefly discuss the two printouts for a pharmacist and a physician. They might discuss similarities, differences, required amount of education, salaries, working conditions, etc. Ask the class to now reflect on how different the job descriptions were during the 1800's in the midst of the Small Pox epidemic in Texas. (No hospitals, no 911, no ambulances, unsterile instruments, or lack of facilities, travel by horse and wagon, lots of home visits, limited amount of medicine, language barrier with the Native Americans, limited knowledge about Small Pox.)
2. Guide the discussion of the past vs. present medical field so that students realize that technology and information is what has changed the most rather than the underlying role of a physician or pharmacist. Ask students to research and share books or pictures showing medical instruments of the past and their present. (books, websites, etc.)
3. Individually, students may produce a report explaining the positive and negative aspects of the careers of a pharmacist or physician.

Arrange for the students to listen to or visit the workplace of a pharmacist or physician to learn first hand about their careers in your area. Request that they focus on how their field of work has changed in the last 200 years and how it could change in the future.

Continue the discussion to include what the future medical field might be like. What types of technology will be used, what kinds of new diseases will there be, how will physicians and pharmacists treat patients who are ill? Allow for creativity in the descriptions such as designing an office, drawing new instruments, creating new drugs, etc.

**Teacher-to-Teacher Notes**

Student participation in discussion or draw a Venn-diagram. Teacher may randomly call on students to answer questions.

**Check for Understanding**

Students may extend the lesson by researching and preparing a Venn-Diagram comparing “Physicians of Yesterday vs. Today, ” or “Pharmacists of Yesterday, Today, and Tomorrow.”

**Assessment**

1. Venn-diagram
2. Brief report following speaker or visit to the workplace of a pharmacist or physician discussing how the medical field has changed over 200 years current occupation information, etc.
3. Brief report explaining the positive and negative aspects of current pharmacists or physicians.

**Objective**

The students will be able to relate today’s job description of a pharmacist and physician to that of one in the 1800’s and may be able to predict future careers.

**Materials**

Internet access, printing capabilities or copies of information from website, medical reference

**Technology Utilization**

Internet

**Learning Styles**

Concrete Sequential  
Concrete Random

**Multiple Intelligences**

Verbal/Linguistic

**Thinking Skills**

Basic

**SE - Course**

SS 113.23: 7.2 (B), 7.8 (A), 7.12 (C), 7.20 (A), 7.21 (B)(C)(D), 7.22 (C)(D),

**SE - Cross Curricular**

ELA 10.23: 7.1 (A)(C)(D), 7.8 (B), 7.10 (B)(G)(H)(L), 7.11 (A)(D), 7.13 (B)(I), 7.15 (A)  
SC 112.23: 7.3(F)  
Career Investigation 127.2: 8(B), 4(A)

**TASS**

SS 2:8.28 (D), 5:8.29 (A), 6:8.25 (B), 8:8.30 (B)  
RE 2:7.13 (D), 5:7.13 (D)(G)  
WR 1:8.15 (B)(C)

**TAAS II/TAKS**

RE 1:7.10 (F)G  
WR 1:7.15 (A)(B)(C)

**Accommodations**

Assistive Technology/Materials, Instructional Support

**Extensions**

Complexity

**Resource Pages**

None



Know It  
Do It  
Think It

Activity 2

Careers in Action

TEKStar Activity Summary

Lesson Title Know Your Pox

Time Frame 60-90 Min

**Activity Description**

Begin by asking students if they know anything about the diagnosis or treatment of Small Pox mentioned in Activity 1. Ask students to pair up together and play the role of a physician or a pharmacist in 1850 in Texas. Students will use the job description printed from the previous activities to determine the responsibilities in solving the problem of eradicating Small Pox in Texas.

Guide a class discussion toward the steps necessary before reaching a conclusion to present. Example: First, gather information (research) to determine symptoms and current 1850 treatments. Second, “brainstorm and experiment” with proposed solutions. Last, develop a plan of action to stop Small Pox in Texas. [Hand each couple one packet of information to be used to present their plan of action for a medical debate.] The directions could be written in the form of a letter asking for their assistance in determining a solution from the U.S. president at that time. Each packet should include a copy of the letter (optional), a map of Texas in 1850, a copy of a page containing symptoms of Small Pox, and pictures downloaded from websites or from medical books. Remind students that each one of them is playing the role of either a physician or pharmacist during the 1850's in Texas and technology is limited. (Possible solutions could include: stop all immigration and emigration throughout Texas, segregate all people affected with Small Pox, burn or boil all clothing and bedding of those who died from Small Pox, develop a vaccine, request all known information from Edward Jenner, etc.)

Students will only be allowed to use the information provided to them-just like in the 1850's. Information was scarce and limited so students must rely only on the information and each other.

As the groups present, allow the rest of the class to pose questions. For example, if a solution is given to build a wall around Texas to keep “us” in and “them” out, who is going to build the wall and with what materials? Inform the class that they will be asked questions such as these so they must present, well thought-out and detailed plan of action.

### Teacher-to-Teacher Notes

Collect information for group packets days in advance.

Websites may include:

<http://members.aol.com/cbbelt/Food/pox.htm>

or

<http://www.ask.com>

for a listing of additional websites and books.

Teacher may extend this activity to discuss a plan of action to eradicate anthrax.

### Objective

The student will use current job descriptions for a pharmacist and a physician to play the role in developing a solution to eradicating Small Pox in Texas in 1850.

### Materials

One packet of information per couple containing symptoms and pictures of small pox, a map of Texas in 1850, and copies of current job description for a pharmacist and a physician.

### Technology Utilization

Internet (for teacher's use)

### Check for Understanding

Teacher monitors students during discussion, research, and presentations. Pose difficult questions to groups to ensure a well thought out detailed plan. Questions might include: How will you protect yourselves? How will you notify people to not come into Texas territory if you have small pox? What if people with small pox won't leave Texas in order to protect the others? How will you quarantine all of the people with small pox?

**Assessment**

Teacher will develop a rubric to assess each portion of the presentation: Research 30%, Solutions 30%, Plan of Action 40%.

Students may grade each other's solutions using the above mentioned rubric as well.

**Learning Styles**

Concrete Sequential  
Abstract Sequential  
Concrete Random  
Abstract Random

**Multiple Intelligences**

Verbal/Linguistic  
Logical/Mathematical

**Thinking Skills**

Dynamic

**Accommodations**

Adapted Assignment, Assistive Technology/Materials, Instructional Support.

**SE - Course**

SS 113.23:7.2 (B), 7.9 (A)(B)(C), 7.21 (B)(C)(E), 7.22 (C)(D), 7.23 (A)(B)

**SE - Cross Curricular**

HE 115.23:7.4 (C), 7.12 (A)(D)(G)  
SC 112.23: 7.2 (A)(D), 7.3 (A)(F)  
ELA 110.23:7.1 (C), 7.5 (B), 7.10 (B)(G)(H), 7.11 (A)(B), 7.13 (A)(C)(D)(F)(G)(H)(I),  
7.15 (A)(C)  
Careers Investigations 127.2:7(C)

**TAAS**

SS 8:8.30 (B)(D)(F)  
RE 2;7.13 (D), 5:7.10 (H)  
WR 1:8.15 (B)(C)

**TAAS II/TAKS**

SS 5:8.30 (A)(B)(C)(D)  
SC 3: Bio (4) (C)  
RE 4:7.10 (H)  
WR 1:7.15 (B)(C)

**Extensions**

Depth and Rigor, Complexity, Acceleration

**Resource Pages**

None

Careers in Action

TEKStar Activity Summary

Lesson Title Into the Future

Time Frame 90 - 120 Minutes

1. The teacher writes the following list of career areas on the chalkboard and tells the students that these are the Top 5 Career Areas that 80% of the jobs will fall into over the next 10 years (2000-2010)
  - Protective Services
  - Health Care
  - High Tech
  - Education
  - Food and Entertainment
2. Students are divided into 5 groups with a group leader appointed for each group.
3. The teacher gives the following group assignment:

Work as a group to rank/order this list of career areas from the area that will be in the greatest demand to the one that will be in least demand of the Top 5. Students are told to be sure they have reasons for their choices. Each group will be asked to share its thinking.
4. Each group shares, then the teacher provides the correct order and may cite some reasons as:
  - 1.) **High Tech**- Use of technology is essential to improving the quality of living; many jobs in this career area have not even been dreamed of yet.
  - 2.) **Health Care**- People are living longer and will need Health Care- especially home care, physical therapy, etc.
  - 3.) **Education**- More training will be required in all of these areas to keep current with evolving technology, new research, etc.
  - 4.) **Food and Entertainment**- Baby Boomers (people born in the late 40's or early 50's) are living longer and want to be entertained. They love to eat (but don't want to cook).
  - 5.) **Protective Services**- People want to feel secure and have their goods protected in this demanding world. There will be a greater need for more security guards, security technicians, etc.

### **Continued from page 11**

The teacher will introduce the term personal resume and present some examples. (See website: <http://jobstar.org/tools/resume/student/htm>)

Students will create their own résumé, using current experiences, qualities, and skills relating to the Health Care field. The teacher will explain to students that their résumés are to be continued (i.e. this is just a “start up” résumé.) It will be important for students to know that they update their résumés on a regular basis to show their continued growth and experiences. (Even if students are not particularly interested in the Health Care field, they will see that they still have skills that can apply.) Students may use the resources and websites from activity #1 to help in this activity.

5. After compiling their resume, ask students to read throughout the classified section of a newspaper to determine if there are any jobs in the health care field they could actually apply for based on their current qualifications. Ask students to cut out and staple the advertisement to the front of their resume.

### **Teacher-to-Teacher Notes**

The teacher may wish to become familiar with various health science careers by reading or using the Internet.

Labor Market Information for the Texas Rio Grande Valley can be found on the Tech Prep website:

<http://www.techprepRGV.com>

The teacher will need to select sample resume formats from the Internet or other sources to provide students some examples.

Students may type the resume on a computer.

Students may need individual assistance as they select a resume format and begin to list experiences they have.

If students are unable to locate any Health Care jobs with a 7<sup>th</sup> grader’s limited experience and education, then use this as an opportunity to “discover” the importance of finishing school, getting additional training or education, setting goals now, taking appropriate high school courses, maintaining good grades, gaining personal experience through volunteering, etc.

**Objective**

The student will create his/her own resume and determining any currently available jobs in a newspaper they are qualified for.

**Materials**

Paper for brainstorming activity  
Word processing program, if available  
Classified ads from a variety of newspapers  
Scissors  
Stapler

**Technology Utilization**

Internet

**SE - Course**

ELA 110.23:7.1 (A), 7.2 (D), 7.15 (A)(B)(C)(E)(H), 7.20 (D), 7.8 (B)(C), 7.18 (H),  
7.19 (B)(C)(D)(E)

**SE - Cross Curricular**

Career Investigation 127.2:4 (D)

**TAAS**

SS 7:8.30 (A)(B)  
WR 1:8.15 (B)(C)(E)(F)  
SC 2:8.3 (B)

**TAAS II/TAKS**

WR 1:7.15 (A)(B)(C)(E)  
RE 4:7.11 (C)(D)

**Check for Understanding**

The teacher will monitor student participation in the brainstorming process. The teacher may ask one or two students to role play an interview using their/another resume to reinforce relevance.

**Assessment**

Ask Students to exchange resumes and evaluate each others by looking for the following: grammar, punctuation, correct format, layout, and accurate information.

Once students turn the edited resumes into you, grade for overall appeal and how well the classified ad relates to their actual experience.

**Learning Styles**

Concrete Sequential

**Multiple Intelligence**

Intrapersonal  
Verbal/Linguistic

**Thinking Skills**

Engaged

**Accommodations**

Instructional Support

**Extensions**

Performance Options

**Resource Pages**

None



Careers in Action

TEKStar Activity Summary

Lesson Title The Texas Rash is Upon You

Time Frame 60 Minutes

1. Read the following scenario to students:

“ The space shuttle has just returned from a new planet just discovered. Strangely two months after their return, each astronaut developed a bazaar rash in the shape of ....Texas on the soles of their feet! NASA has brought in a team of health specialists (to include pharmacists and physicians) to determine the cause of this disease, its treatment, and how to stop any potential spreading to other people. The team of specialists is each one of you in this room. Listed on the board is all we know today. Time is running out!”

Write the following information on the board:

**Shape of Rash:** Texas shaped rash

**Color:** Rash varies its color from white, to red, and then blue.

**Location of Rash:** on the soles of both the left and right feet of all astronauts

**Degree of Coverage:** 80% of soles are covered

**Diagnosis:** [makeup the name]

**Treatment:** [Determine by using a variety of at least five items associated with Texas to cure this rash.] (Items may include but are not limited to: native plants, flowers, geographical features, crops, cultural characteristics, industry, etc.) Example: Wash infected area twice daily with one cup of water from the Rio Grande River. Grind ten blossoms from a bundle of blue bonnets and mix with one teaspoon of sand from South Padre Island. Apply this paste to the affected area and cover with a piece of cotton. Squeeze one orange and poor the juice over the cotton. Let air dry for several minutes and cover with band-aids. Do not wear boots or two-step for longer than four hours straight. Horseback riding and fishing for less than 2 hours straight is good therapy. Repeat these steps for one week or until symptoms disappear.

Allow students to write their treatment on a poster board decorated with pictures, items, etc. that corresponds to their description of treatment.

Finally, let students present and display their posters.

**Teacher-to-Teacher Notes**

Encourage creativity on the part of the students. For learning disabled students, the paragraph may be copied and students fill-in-the-blanks instead of creating their own. Students may work in pairs or individually.

**Objective**

The student is expected to apply their knowledge of Texas geography to create a treatment for a fictitious Texas rash.

**Materials**

Resource materials on Texas

**Technology Utilization**

Internet (if desired)

**SE - Course**

SS 113.23:7.9 (A), 7.21 (B)(C), 7.22 (C)(D)(B), 7.23 (A)

**SE - Cross Curricular**

ELA 110.23:7.4 (A), 7.10 (A)(H), 7.12 (A), 7.15 (C)(D)(E), 7.24 (A)(C)

**TAAS**

WR 1:8.15 (B)(C)(E)(F)

**TAAS II/TAKS**

WR 1:4.15 (A)(B)(C)(E)  
SS 2:8.11 (B)

**Check for Understanding**

The teacher monitors and offers support. The example may be shown to those who are struggling.

**Assessment**

Teacher will grade the poster for creativity, accurateness of Texas geographical details, and teamwork.

**Learning Styles**

Abstract Sequential  
Concrete Random  
Abstract Random

**Multiple Intelligence**

Verbal/Linguistic  
Logical/Mathematical

**Thinking Skills**

Dynamic

**Accommodations**

Adapted Assignment, Instructional Support

**Extensions**

Depth and Rigor, Complexity, Acceleration

**Resource Pages**

None