

Instructional Recipe

What Are the Top 5 Technologies From 1800-1999?

Grade 7, Texas History

Step 1 – Ask

Objectives:

Students will compare types and uses of technology from the 19th and 20th centuries in Texas.

Introduction:



[Early model chain drive automobile]. The Portal to Texas History.
<http://texashistory.unt.edu/ark:/67531/metaph1140/>. Accessed August 10, 2009.

Ask:

- ★ Can you think of some 19th century technology?
- ★ Can you think of some 20th century technology?
- ★ How has technology changed life in Texas?
- ★ How has your life been affected by technology?

Vocabulary:

- ★ **technology** - electronic or digital products and systems considered as a group

TEKS:

- (7.20A)** compare types and uses of technology, past and present.
(7.21 A) differentiate between, locate, and use primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas.
(7.21B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions.
(7.21C) organize and interpret information from outlines, reports, databases, and visuals including graphs, charts, timelines, and maps.
(7.21D) identify points of view from the historical context surrounding an event and the frame of reference that influenced the participants.
(7.21E) support a point of view on a social studies issue or event.

Technology Application TEKS:

- 3A.** Discuss copyright laws/issues and models, ethical acquisition and use of digital information, citing sources using established methods
3D Identify the impact of technology applications on society through research, interviews, and personal observation
3E Understand relevancy of technology in future careers, life-long learning and daily living for individuals of all ages
4B Apply appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies
6A Determine and employ methods to evaluate the electronic information for accuracy and validity
6B Resolve information conflicts and validate information through accessing, researching, and comparing data
6C Demonstrate the ability to identify the source, location, media type, relevancy, and content validity of available information
7A Plan, create, and edit documents created with a word processor using readable fonts, alignment, page setup, tabs, and ruler settings
10A Use productivity tools to create effective document files for defined audiences such as slide shows, posters, multimedia presentations, newsletters, brochures, or reports

Step 2 – Investigate

Texas Heritage Online Resources:

- ★ Plummer, Roger S.. [*Steam Locomotive entering Paris, Texas*]. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph28763/>. Accessed August 9, 2009.
- ★ Texas Historical Foundation. "Texas State Railroad." *Heritage, Volume 07, Number 02, Spring 1989*. Austin, Texas. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph45432/>. Accessed August 9, 2009.
- ★ *Cowboys near an Axtell Windmill*. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph43213/>. Accessed August 9, 2009.
- ★ [*People in an Automobile*]. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph40149/>. Accessed August 9, 2009.
- ★ Dallas Historical Society. "You Have Half A Station, We Have Half A Station." *Legacies: A History Journal for Dallas and North Central Texas, Volume 11, Number 01, Spring, 1999*. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph35102/>. Accessed August 9, 2009.
- ★ "*This Nation at War*" Radio Show. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph40914/>. Accessed August 9, 2009.
- ★ Dallas County Heritage Society. "A Transportation Timeline." *Legacies: A History Journal for Dallas and North Central Texas, Volume 07, Number 01, Spring, 1995*. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph35110/>. Accessed August 9, 2009.
- ★ Belden, Dreanna L.. *X-38 Crew Return Vehicle*. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph3634/>. Accessed August 9, 2009.
- ★ Texas Historical Foundation. "A High Tech Primer." *Heritage, Volume 14, Number 04, Fall 1996*. Austin, Texas. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph45407/>. Accessed August 9, 2009.
- ★ Belden, Dreanna L.. *Sproul Ranch, a Nasa weather radar*. The Portal to Texas History. <http://texashistory.unt.edu/ark:/67531/metaph5393/>. Accessed August 10, 2009.

EBSCO Resources:

- ★ Austin. Columbia Electronic Encyclopedia, 6th Edition, 1/1/2009, p1-1, 1p; Reading Level (Lexile): 1130; (AN 39044954)
<<http://search.ebscohost.com/login.aspx?direct=true&db=mih&AN=39044954&site=src-live>>
- ★ Dallas. Columbia Electronic Encyclopedia, 6th Edition, 1/1/2009, p1-1, 1p; Reading Level (Lexile): 1180; (AN 39001831)
<<http://search.ebscohost.com/login.aspx?direct=true&db=mih&AN=39001831&site=src-live>>
- ★ The Story. By: Baker, T. Lindsay. *Blades in the Sky: Windmilling through the Eyes of B. H. "Tex" Burdick*, 1992, p3-21, 19p; (AN 36086674)
<<http://search.ebscohost.com/login.aspx?direct=true&db=tih&AN=36086674&site=src-live>>
- ★ Cell Phones Make Headway in Education. By: Kharif, Olga. *Business Week Online*, 8/28/2008, p8-8, 1p; Reading Level (Lexile): 1210; (AN 34159043)
<<http://search.ebscohost.com/login.aspx?direct=true&db=ulh&AN=34159043&site=src-live>>
- ★ Digital TV on a Cell: Boom or Bust? By: Deffree, Suzanne. *Electronic News* (10616624), 11/29/2004, Vol. 50 Issue 48, pN.PAG, 0p; (AN 15266913)
<<http://search.ebscohost.com/login.aspx?direct=true&db=voh&AN=15266913&site=src-live>>
- ★ Texas, Depending. By: Covault, Craig. *Aviation Week & Space Technology*, 3/27/2006, Vol. 164 Issue 13, p40-40, 1/2p; Reading Level (Lexile): 1300; (AN 20598257)
<<http://search.ebscohost.com/login.aspx?direct=true&db=ulh&AN=20598257&site=src-live>>

Additional Websites:

- ★ <http://tshaonline.org/handbook/online/articles/AA/dnaul.html>
- ★ <http://tshaonline.org/handbook/online/articles/EE/dne1.html>
- ★ <http://tshaonline.org/handbook/online/articles/MM/dzm1.html>

Step 3 – Create

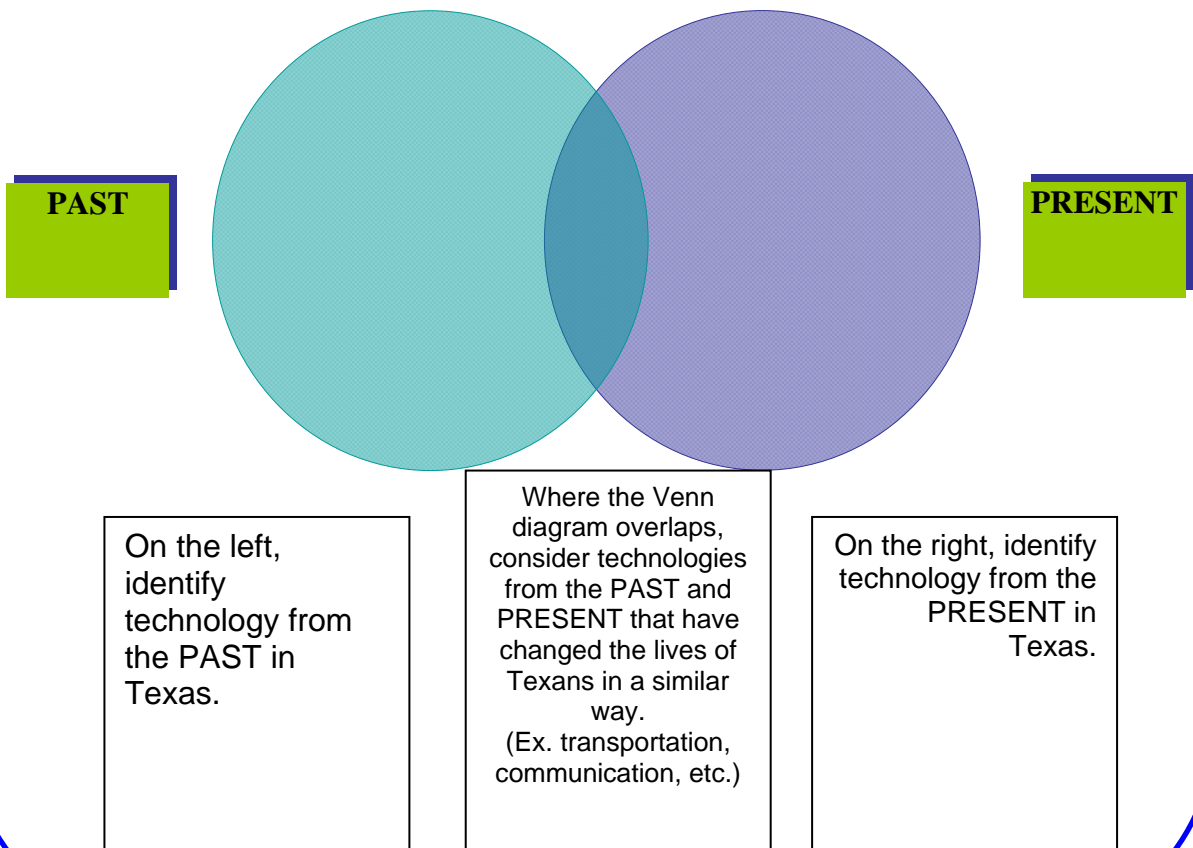
Students can work individually or with partners to create a concept map that organizes the information they learned about Texas. Here are some suggested topics that could be included:

☞ Technology Link – Students may use graphic organizer software such as Inspiration, or create a diagram in a word processor program, such as Microsoft Word.

Allow students to share their information with another group or as a whole class.

How have technological advances changed the lives of Texans?

(Ex. automobile, radio, spacecraft, computers, cell phones, steam locomotive, windmill, medical, etc.)



Step 4 – Discuss

Students may choose one of the following projects to complete:

- ★ **Write a news article** that highlights the “Top 5 Technology of the 19th and 20th Centuries in Texas.” Be sure to include how each technology has impacted life in Texas, how each technology is used, and how each technology compares with other technology (for example, how the steam locomotive and the automobiles have both affected social life, but also business).
- ★ Pretend you are a time traveler who is on a journey through Texas history in the 19th and 20th centuries. **Write a blog** that introduces the 5 most significant technologies you have encountered on your journey. Be sure to include how each technology has impacted life in Texas, how each technology is used, and how each technology compares with other technology (for example, how the steam locomotive and the automobiles have both affected social life, but also business).

🔗 Technology Link - Students can use Microsoft Word or Publisher to develop their newsarticle. Use an educational blogging site, such as <http://edublogs.org/> to create the blog. Use the EBSCO image collection to help you find images of Texas.

Step 5 – Reflect

Allow students to present their projects to the rest of the class. Use the following suggested rubric to assess the students' work. Make sure that the students are familiar with the rubric *before* they begin creating their project. They should refer to the rubric repeatedly to monitor their progress in creating their project.

🔗 Technology Link: You can also create your own rubric with your students at <http://rubistar.4teachers.org/index.php>.

News Article: Technology in Texas, 19th to 20th Century

Teacher Name: _____

Student Name: _____

CATEGORY	4	3	2	1
Articles - Purpose	90-100% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.	85-89% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.	75-84% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.	Less than 75% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.
Articles - Supporting Details	The details in the articles are clear, effective, and vivid 80-100% of the time.	The details in the articles are clear and pertinent 90-100% of the time.	The details in the articles are clear and pertinent 75-89% of the time.	The details in more than 25% of the articles are neither clear nor pertinent.
Graphics	Graphics are in focus, are well-cropped and are clearly related to the articles they accompany.	Graphics are in focus and are clearly related to the articles they accompany.	80-100% of the graphics are clearly related to the articles they accompany.	More than 20% of the graphics are not clearly related to the articles OR no graphics were used.
Knowledge Gained	Accurately answers 5 or more questions related to the technologies identified.	Accurately answers 3 or more questions related to the technologies identified.	Accurately answers 1 or more questions related to the technologies identified.	Inaccurately answers questions related to the technologies identified.

**Blog: Time Travel through Texas,
Technology in the 19th & 20th Centuries**

Teacher Name: _____

Student Name: _____

CATEGORY	4	3	2	1
Blog - Purpose	90-100% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.	85-89% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.	75-84% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.	Less than 75% of the article establishes a clear purpose in the lead paragraph and demonstrates a clear understanding of the topic.
Blog - Supporting Details	The details in the blog are clear, effective, and vivid 80-100% of the time.	The details in the blog are clear and pertinent 90-100% of the time.	The details in the blog are clear and pertinent 75-89% of the time.	The details in more than 25% of the blog are neither clear nor pertinent.
Graphics	Graphics are in focus, are well-cropped and are clearly related to the blog they accompany.	Graphics are in focus and are clearly related to the blog they accompany.	80-100% of the graphics are clearly related to the blog they accompany.	More than 20% of the graphics are not clearly related to the blog OR no graphics were used.
Knowledge Gained	Accurately answers 5 or more questions related to the technologies identified.	Accurately answers 3 or more questions related to the technologies identified.	Accurately answers 1 or more questions related to the technologies identified.	Inaccurately answers questions related to the technologies identified.