



## PORCH TALK

### Education Activities Guide

*"Howdy, Educators!"*

Welcome to the **Porch Talk: A Conversation About Archaeology in the Texas Panhandle** (by John R. Erickson & Douglas K. Boyd) **Education Activities Guide**. The following pages contain social studies activities designed to coordinate with the book and provide educational supports. These eight activities can be treated as stand-alone supplement/enrichment activities for your classroom's curriculum OR can be taught sequentially as a total unit. Activities can be completed by individual students or within student groups, with no minimum/maximum number of students required.

**BONUS MATERIALS** can be found at [ranchlifelearning.com](http://ranchlifelearning.com), including downloadable PDFs of all resources provided as master copies in this book.

#### – TO USE THIS GUIDE –

1. Each lesson is separated by an **ACTIVITY DIVIDER**, a quick-reference that includes:
  - Activity Number & Title
  - Porch Talk Book Number/Chapter Reference for Activity
  - Topic(s)
  - Objective(s)
  - Texas Essential Knowledge and Skills (or TEKS)
2. An **EDUCATOR GUIDE** that includes for each activity:
  - Materials List
  - Instructions for Educator
  - Reading Strategy (*chapter and page references*)
3. A **SECURITY BRIEFING** - student instruction sheet presented as "Words of Wisdom" from Hank the Cowdog. This sheet includes an overview of the activity, including any key words/phrases and additional instructions. It can be used as a "station card" for students working in groups.
4. **RESOURCES** - master copies for activity preparations (*referenced in ALL CAPS within activity instructions*), also available for PDF download at [ranchlifelearning.com](http://ranchlifelearning.com).

## *Want more?*

Visit [ranchlifelearning.com](http://ranchlifelearning.com) for more information or additional educator guides for the Hank the Cowdog Ranch Life Series *and more!*

## *About the Curriculum Authors*

Educator **Jenny Gaona** is the creative mind behind this guidebook. She is a social studies specialist who designs classroom curricula and resources.

## *Special Thanks*

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# ACTIVITY 1

## *Who Was Here?*

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### **PORCH TALK: A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

**Topic:**  
Archaeology

**Objective:**  
Students will define the job of an archaeologist and explain why their job is important for understanding the lives of people who lived before us.

**Texas Essential Knowledge and Skills (TEKS):**  
7.19A, 7.19D, 7.20B, 7.22C

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## *What is an Archaeologist?*

**TOPIC:** Archaeology

**ACTIVITY MATERIALS:**

- VENN DIAGRAM: RANCHER VS. ARCHAEOLOGIST HANDOUT (PAGE A1-3): 1 PER STUDENT
- SPEAKING WITH AN EXPERT HANDOUT (PAGE A1-4): 1 PER STUDENT
- QUESTIONS FOR AN ARCHAEOLOGIST HANDOUT (PAGE A1-5): 1 PER STUDENT

**READING STRATEGY:**

- Give students time to read the introductions from John Erickson and Douglas Boyd. As students read they will be filling in the Venn diagram. Students will complete the Venn diagram by providing the following:
  - 2 annotations from the introduction of John Erickson (RANCHER)
  - 2 annotations from the introduction of Douglas Boyd (ARCHAEOLOGIST)
  - 1 annotation that they feel John Erickson and Douglas Boyd have in common

**ACTIVITY INSTRUCTIONS:**

1. Each student will analyze the definition of archaeologist. After reading the definition (individually or in small groups), students create their own definition of archaeologist in 10 words or less.
2. Students work in small groups to brainstorm a list of tools and resources that archaeologists need in order to do their job. Teachers may have student groups rotate to different tables in order to read and interact with the lists from other peer groups.
3. Students work in small groups to create a list of questions they would ask an archaeologist from the sentence stems table. Teachers may create a competition based on the numbered values for each question stem.



# What is an Archaeologist?



## SECURITY BRIEFING –

### WORDS OF WISDOM FROM HANK THE COWDOG:

*It's me again, Hank the Cowdog. I wanted to introduce you to the men responsible for finding "Hank's House". I am pretty proud of this archaeological find that has been named after the greatest dog alive. Now we all know that as the Head of Security, I have the biggest and hardest job on the ranch, but I will tell you that an archaeologist has a pretty tough job too. If you had an archaeologist in your classroom, what questions would you ask them?*

### ACTIVITY INSTRUCTIONS:

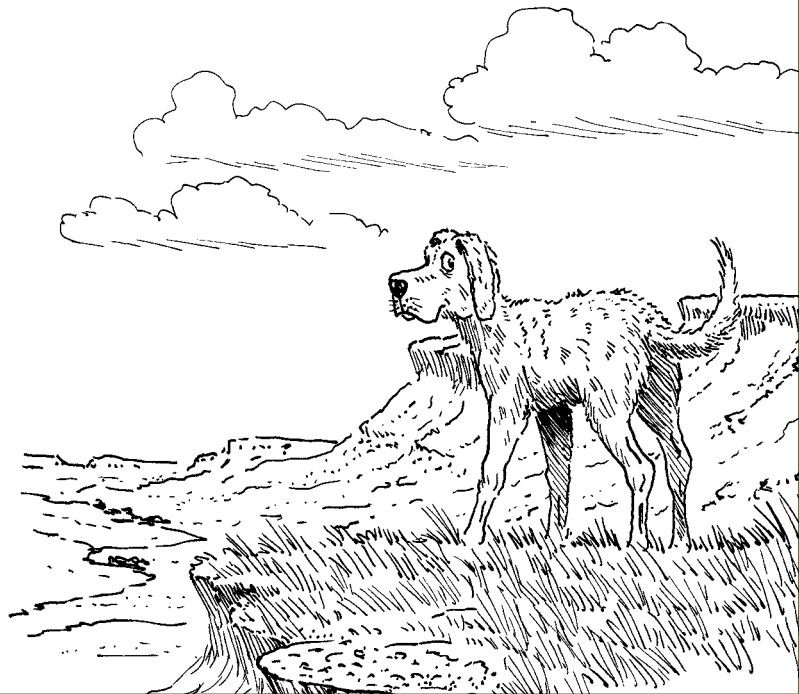
1. Analyze the definition of archaeologist. After reading the definition (individually or in small groups), create your own definition of archaeologist in 10 words or less.
2. Work in small groups to brainstorm a list of tools and resources that archaeologists need in order to do their job.
3. Work in small groups to create a list of questions you would ask an archaeologist from the sentence stems table.

### MATERIALS:

- VENN DIAGRAM: RANCHER  
VS. ARCHAEOLOGIST  
HANDOUT

- SPEAKING WITH AN EXPERT  
HANDOUT

- QUESTIONS FOR AN  
ARCHAEOLOGIST HANDOUT



# What is an Archaeologist?

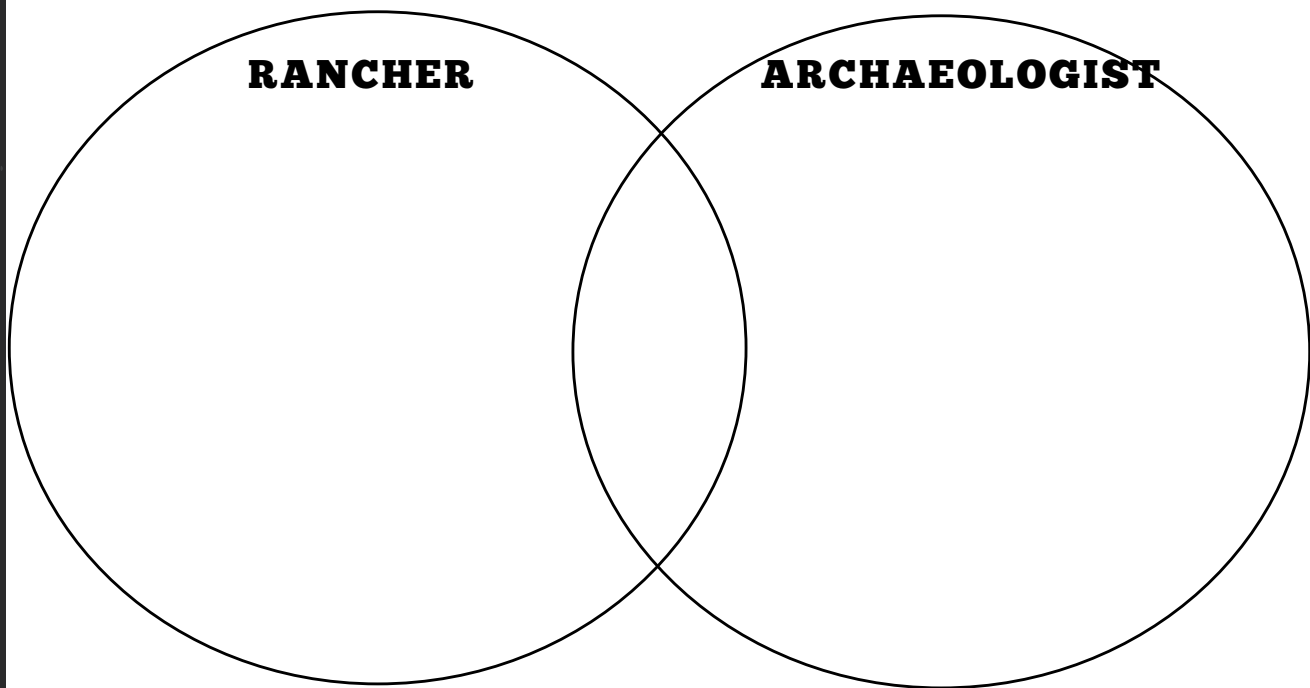


## RANCHER VS ARCHAEOLOGIST

### INSTRUCTIONS:

Read the introductions from John Erickson and Douglas Boyd. As you read, fill in the Venn diagram. Complete the Venn diagram by providing the following:

- 2 annotations from the introduction of John Erickson (rancher)
- 2 annotations from the introduction of Douglas Boyd (archaeologist)
- 1 annotation what they feel John Erickson and Douglas Boyd have in common



*John Erickson ponders the meaning of a pattern of rocks exposed by archaeologists at one of the many curious sites in his West Pasture.*  
*Photo by Douglas K. Boyd.*



# Speaking With An Expert



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS:

Analyze the definition of archaeologist. Create your own definition of archaeologist in 10 words or less.



**Archaeologist: a person who studies human history and prehistory through the excavation of sites and the analysis of artifacts and other physical remains.**

My definition of archaeologist:

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Instructions: Brainstorm a list of tools and resources that archaeologists need in order to do their job. Compare and contrast your list with your peers.

## ARCHAEOLOGISTS: TOOLS AND RESOURCES

- |   |   |
|---|---|
| • | • |
| • | • |
| • | • |
| • | • |
| • | • |

*Douglas K. Boyd uses his trowel to expose the pit-house's distinctive central hearth or firepit. The orange-colored oxidized earth is the "thermal rind" of the firepit and was caused by prolonged intense burning (and iron present in the soil). The cluster of rounded caliche cobbles to the left and beneath the hearth is a natural gravel deposit left by the stream and is completely unrelated to the house. Photo by Kris Erickson.*



# Questions I Would Ask an Archaeologist



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS:

Using the sentence stems below, create a list of questions that you would ask an archaeologist.

1. What did?	2. Where/ When is?	3. Which is?	4. Who is?	5. Why did?	6. How did?
7. What can?	8. Where/ When can?	9. Which did?	10. Who did?	11. Why can?	12. How can?
13. What would?	14. Where/ When will?	15. Which would?	16. Who will?	17. Why would?	18. How will?

Questions I would ask an archaeologist...

1.

2.

3.

4.

5.



## ACTIVITY 2

### *Mapping Texas*

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#### **PORCH TALK: A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

**Topic:**  
Regions of Texas

**Objective:**  
Students will label the regions of Texas and identify the climate and geography of each region. Students will compare the regions of Texas based on where they live and the location of the M-Cross Ranch.

**Texas Essential Knowledge and Skills (TEKS):**  
7.8A, 7.8C, 7.20A, 7.20C, 7.21A, 7.22C

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## Mapping Texas

**TOPIC:** Regions of Texas

**ACTIVITY MATERIALS:**

- REGIONS OF TEXAS POWERPOINT
- REGIONS OF TEXAS- STUDENT NOTES (PAGES A2-3 TO A2-7 ): 1 PER STUDENT
- MAPPING TEXAS HANDOUT (PAGE A2-8 ): 1 PER STUDENT
- MAPPING TEXAS - RESOURCES (PAGE A2-9)

**READING STRATEGY:**

- Students will underline any geographic reference mentioned in *Hobby or Science?*
- When they are done reading and identifying geographic references, students will partner up and compare their geographic references with the references made by a peer.

**ACTIVITY INSTRUCTIONS:**

1. *Provide each student with the Regions of Texas- Student Notes.*
2. *Present the Regions of Texas PowerPoint and allow students to complete the notes and the mapping activities for each region.*
3. *Students work in small groups to create a map of Texas. Students will label the following:*
  - Regions of Texas
  - City where you live
  - Hank's House



# Mapping Texas



## SECURITY BRIEFING –

### WORDS OF WISDOM FROM HANK THE COWDOG:

*It's me again, Hank the Cowdog. Now I reckon you are not lucky enough to have a sniffer as good as the Head of Ranch Security, so you might need other tools to know where you are going. Smart folks have split up the large state of Texas into regions because of the variety in geography and climate across the state. Use the mapping activities to identify the regions of Texas and to figure out where you are taking your boots off at night. Good luck!*

### ACTIVITY INSTRUCTIONS:

1. Complete the Regions of Texas notes and the mapping activities for each region.
2. Work in small groups to create a map of Texas. Label the following:
  - Regions of Texas
  - City where you live
  - Hank's House

### MATERIALS:

- REGIONS OF TEXAS POWERPOINT
- REGIONS OF TEXAS- STUDENT NOTES
- MAPPING TEXAS HANDOUT
- MAPPING TEXAS - RESOURCES



*Shaded relief map showing the location of Hank's House relative to major topographic features. Base image from USGS, Thelin and Pike, 1991.*

# Regions of Texas - Student Notes



## **FILL IN THE BLANKS:**

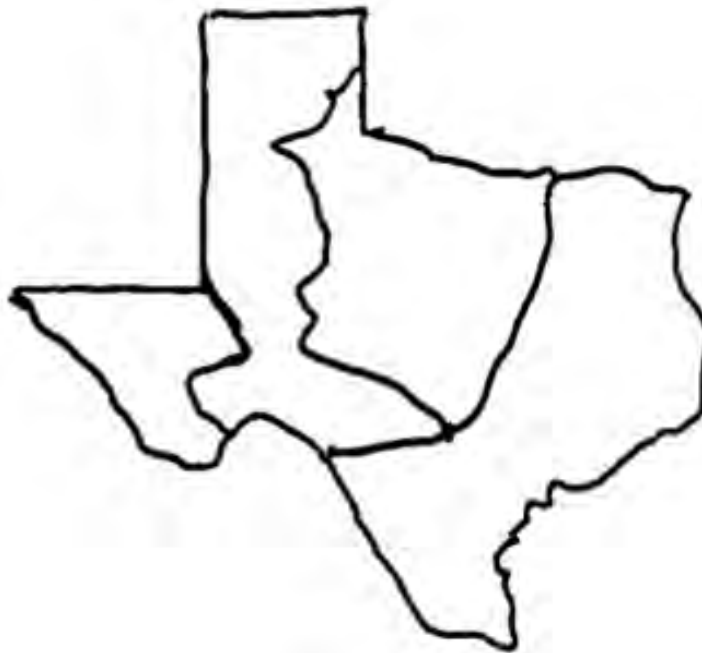
1. A \_\_\_\_\_ is an area that is used to identify and organize areas of the Earth's surface for various purposes.
2. An \_\_\_\_\_ region is an area defined by \_\_\_\_\_ activities, such as agriculture, oil and gas fields, centers for banking, business districts, and ranching.
3. What does the word *ECONOMY* mean?

## **FINISH THE FOLLOWING SENTENCES:**

4. The size of Texas is...
5. Texas is larger than \_\_\_\_\_, but smaller than \_\_\_\_\_.

## **MAP SKILLS**

6. Label and color the regions of Texas



7. Which region of Texas do you live in?

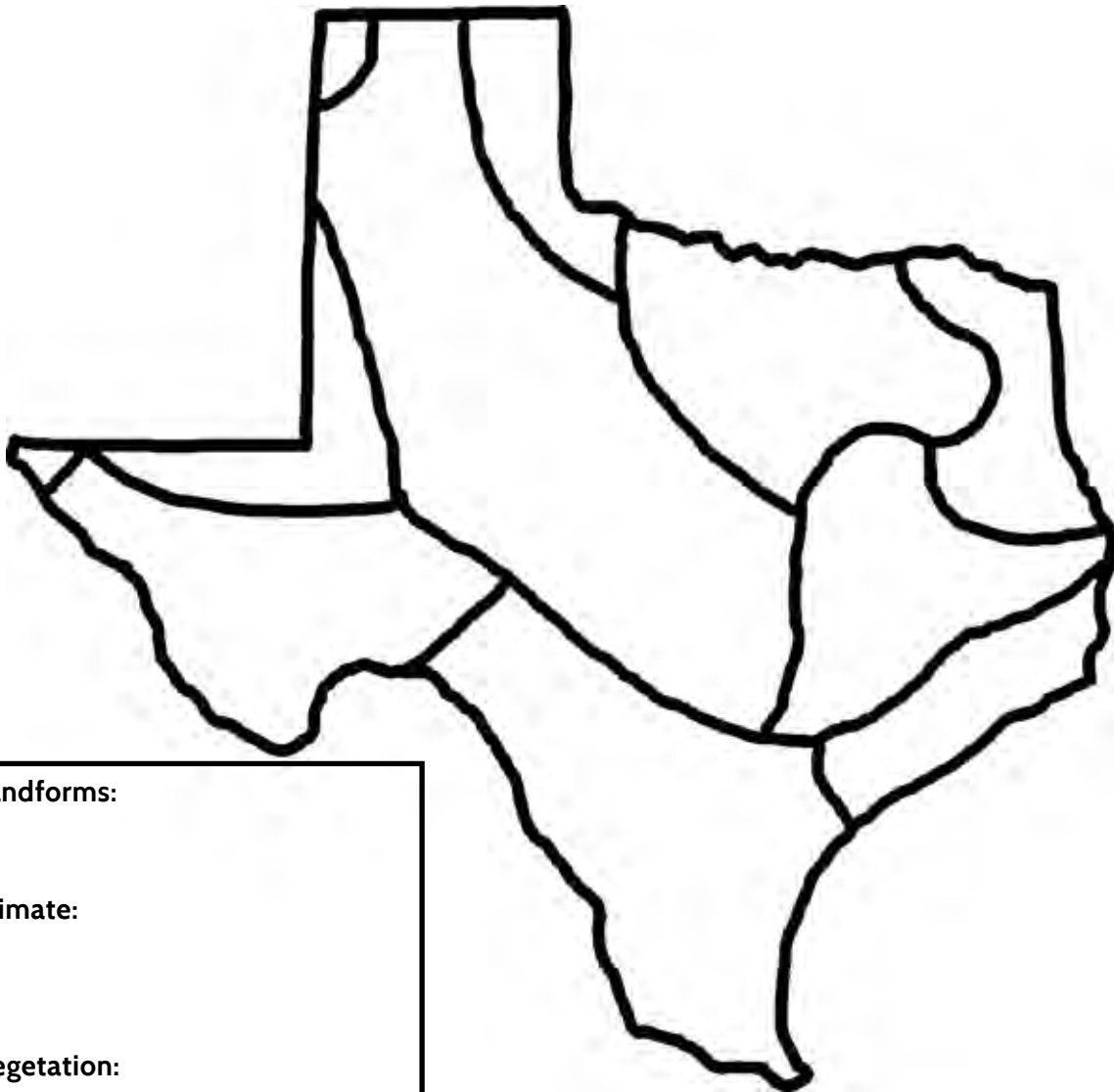
# Regions of Texas - Student Notes



## MOUNTAINS AND BASINS

- **Landforms-** mountains, canyons, and dry plateaus (Guadalupe Mountains, Davis Mountains, Chisos Mountains (part of the Rocky Mountains), Rio Grande River, Pecos River)
- **Climate-** hot summers, cold winters, arid and dry, 8 inches of rain per year, hot days and cool nights
- **Vegetation-** cactus, shrubs, pine trees in mountainous areas

**LABEL THE MAP BELOW WITH 2 EXAMPLES OF LANDFORMS, CLIMATE, AND VEGETATION. MAKE SURE YOU PLACE YOUR ITEMS IN THE CORRECT REGION AND THAT YOU FILL OUT YOUR MAP LEGEND!**



Landforms:

Climate:

Vegetation:

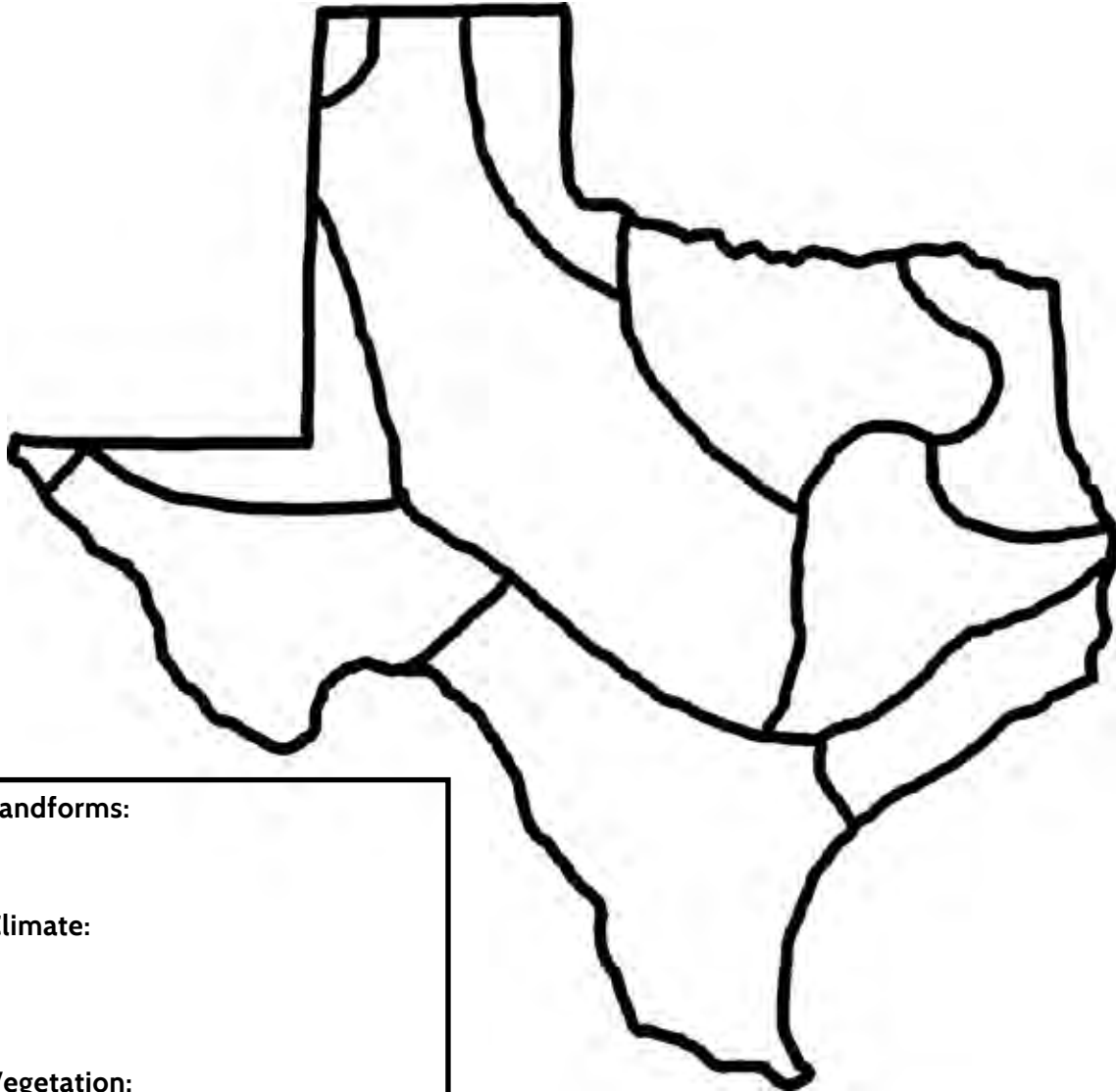
# Regions of Texas - Student Notes



## **GREAT PLAINS**

- **Landforms-** *plains, plateaus, escarpments, canyons (Palo Duro Canyon, Caprock Escarpment, Edwards Plateau)*
- **Climate-** *cooler summers, cold winters, semi-arid, dry with 20 inches of rainfall per year*
- **Vegetation-** *grassland, cotton, wheat, short grasses, shrubs*

**LABEL THE MAP BELOW WITH 2 EXAMPLES OF LANDFORMS, CLIMATE, AND VEGETATION. MAKE SURE YOU PLACE YOUR ITEMS IN THE CORRECT REGION AND THAT YOU FILL OUT YOUR MAP LEGEND!**



Landforms:

Climate:

Vegetation:

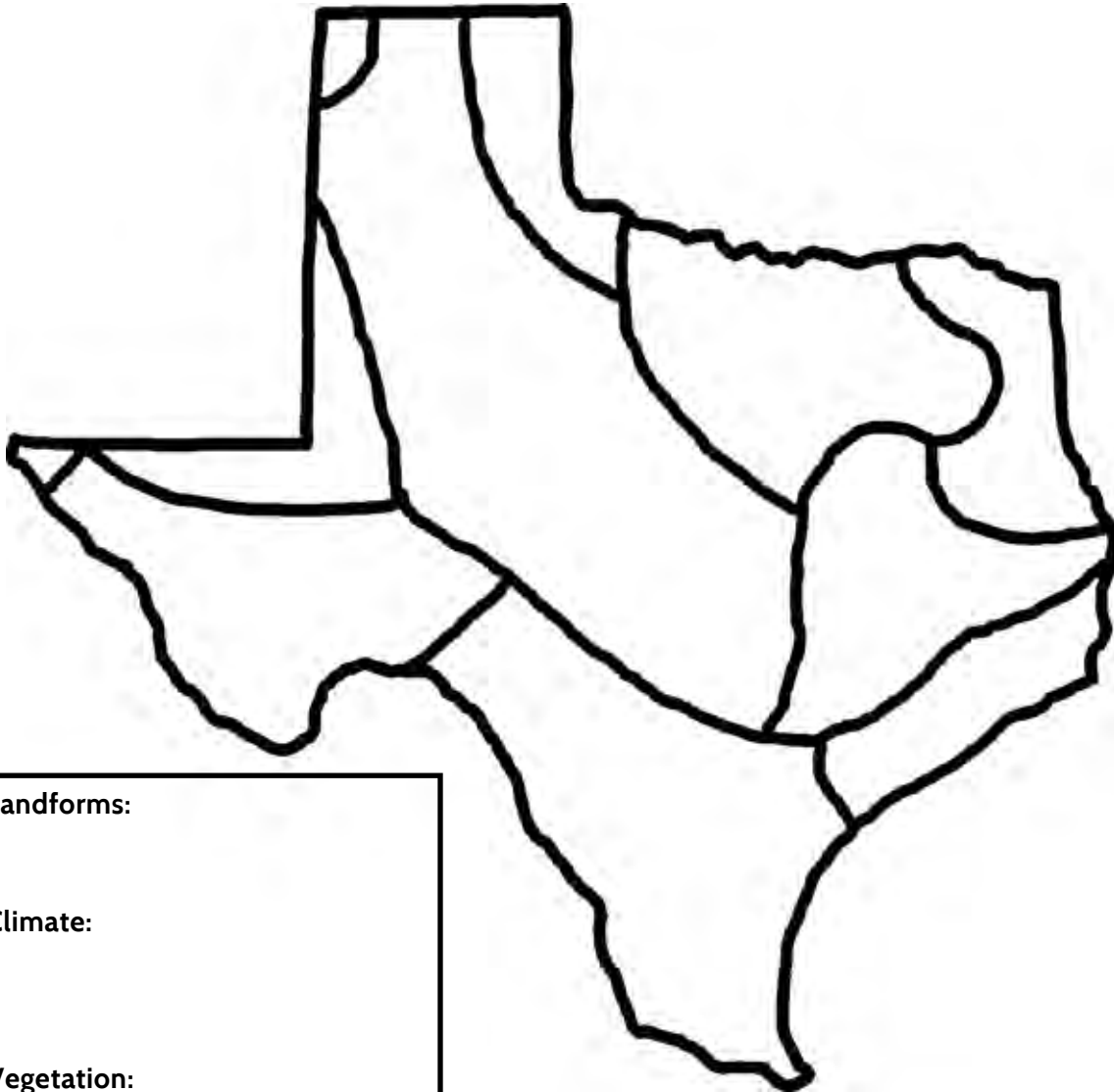
# Regions of Texas - Student Notes



## **NORTH CENTRAL PLAINS**

- **Landforms**- *rolling prairies, forests, rivers*
- **Climate**- *hot summers, cool winters*
- **Vegetation**- *grasses, brush, small trees*

**LABEL THE MAP BELOW WITH 2 EXAMPLES OF LANDFORMS, CLIMATE, AND VEGETATION. MAKE SURE YOU PLACE YOUR ITEMS IN THE CORRECT REGION AND THAT YOU FILL OUT YOUR MAP LEGEND!**



**Landforms:**

**Climate:**

**Vegetation:**

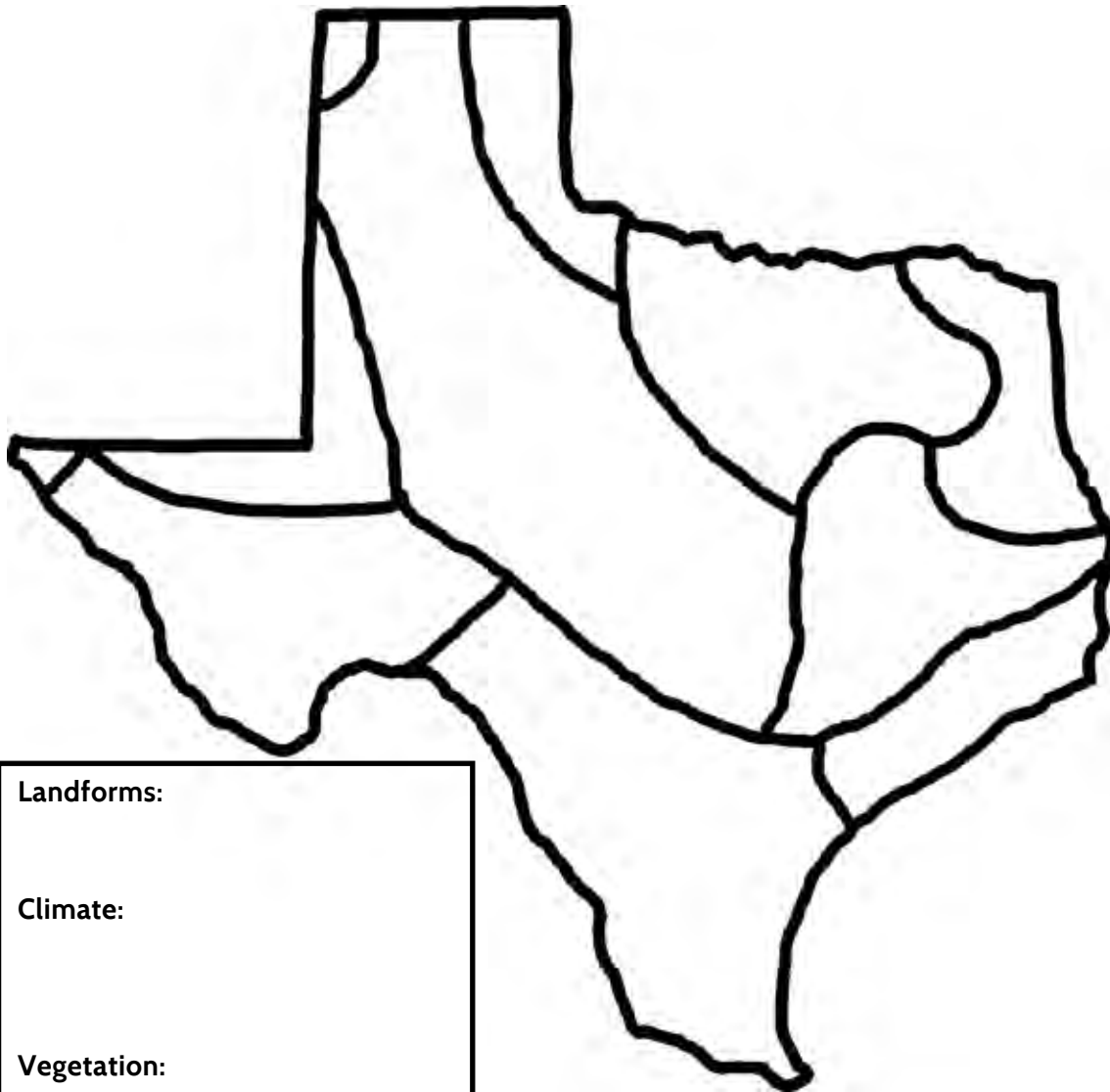
# Regions of Texas - Student Notes



## COASTAL PLAINS

- **Landforms**- plains, rivers, hills, desert, islands along the coast, bayous, escarpments  
(Colorado River, Brazos River, Balcones Escarpment)
- **Climate**- mild winters and summers, humid along the coast, 40–60 inches of rain per year
- **Vegetation**- grasses and shrubs, oak or pine forest

**LABEL THE MAP BELOW WITH 2 EXAMPLES OF LANDFORMS, CLIMATE, AND VEGETATION. MAKE SURE YOU PLACE YOUR ITEMS IN THE CORRECT REGION AND THAT YOU FILL OUT YOUR MAP LEGEND!**



Landforms:

Climate:

Vegetation:



# Mapping Texas

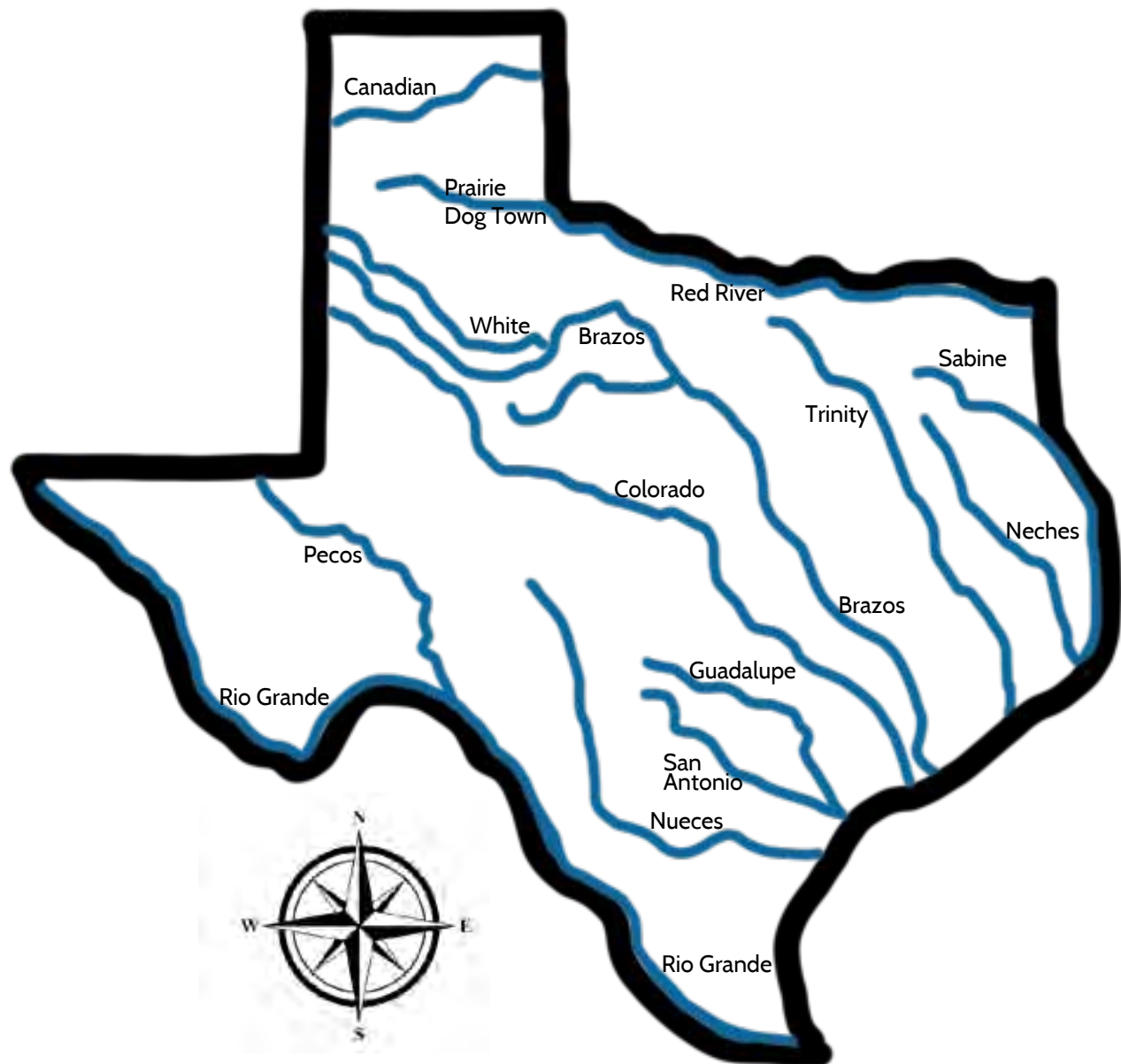


NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS

Use the mapping resources to label the following on the Texas map below:

- Regions of Texas
- City where you live
- Hank's House



Legend:

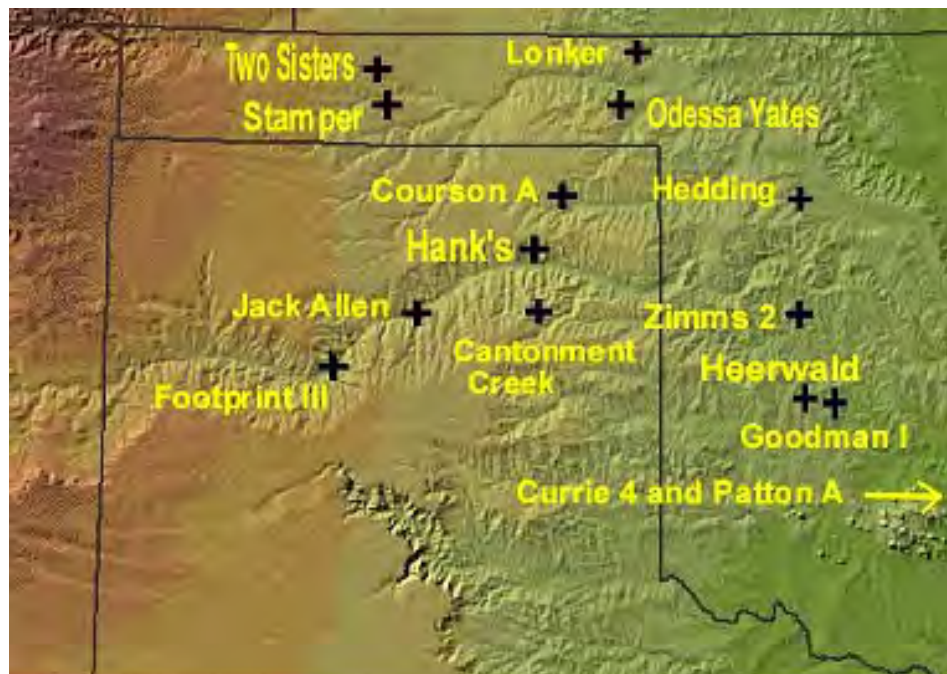
# Mapping Texas - Resources



## REGIONS OF TEXAS



## HANK'S HOUSE





## ACTIVITY 3

### *The People of the Past*



**PORCH TALK:**  
**A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

**Topic:**  
American Indian Tribes

**Objective:**  
Students will label the areas of Texas inhabited by American Indian tribes. Students will then compare aspects of American Indian culture and the impact of geography and climate on that culture.

**Texas Essential Knowledge and Skills (TEKS):**  
7.2A, 7.8A, 7.8B, 7.8C, 7.9A, 7.20A, 7.20B, 7.20C, 7.21A, 7.22C





## The People of the Past

**TOPIC:** American Indian Tribes

**ACTIVITY MATERIALS:**

- AMERICAN INDIANS OF TEXAS: MAP HANDOUT (PAGE A3-3): 1 PER STUDENT
- AMERICAN INDIANS OF TEXAS: MAPPING RESOURCES (PAGE A3-4): 1 PER STUDENT
- AMERICAN INDIANS OF TEXAS: CARD SORT (PAGES A3-5 TO A3-8): 1 PER STUDENT GROUP
- AMERICAN INDIANS OF TEXAS: GRAPHIC ORGANIZER (PAGE A3-9 TO A3-10): 1 PER STUDENT

**READING STRATEGY:**

Ask students to skim the *M-Cross Ranch* and *Doug Wilkens* chapters. As students are skimming through the text, they should write down 3 questions they would want to ask about American Indians. Students may use the following sentence stem to start their questions: "I wonder if..."

**ACTIVITY INSTRUCTIONS:**

1. Have each student label the American Indian tribes on their location on the Texas map.
2. Based on the map, have students complete the American Indian card sort in small groups by using what they know about climate and geography. Once students have finished, discuss the correct answers as a whole group and have students complete their graphic organizer.
3. Have students make connections between the cultures of American Indian tribes and the geography/climate of their location.

# Choose Your Own Adventure Book



## **SECURITY BRIEFING –**

### **WORDS OF WISDOM FROM HANK THE COWDOG:**

*It's me again, Hank the Cowdog. I often wonder what other people and animals walked on this ranch before me. Who all has seen the beautiful sunsets off the canyon? And most importantly, were they lucky enough to have a dog? In this activity you will identify the American Indian tribes who made Texas their home. Pay close attention to the differences between those tribes and how the land shaped their culture.*

### **ACTIVITY INSTRUCTIONS:**

1. Label the American Indian tribes on their location on the Texas map.
2. Based on the map, complete the American Indian card sort in small groups by using what you know about climate and geography. Once you have finished, discuss the correct answers as a whole group and complete your graphic organizer.

### **MATERIALS:**

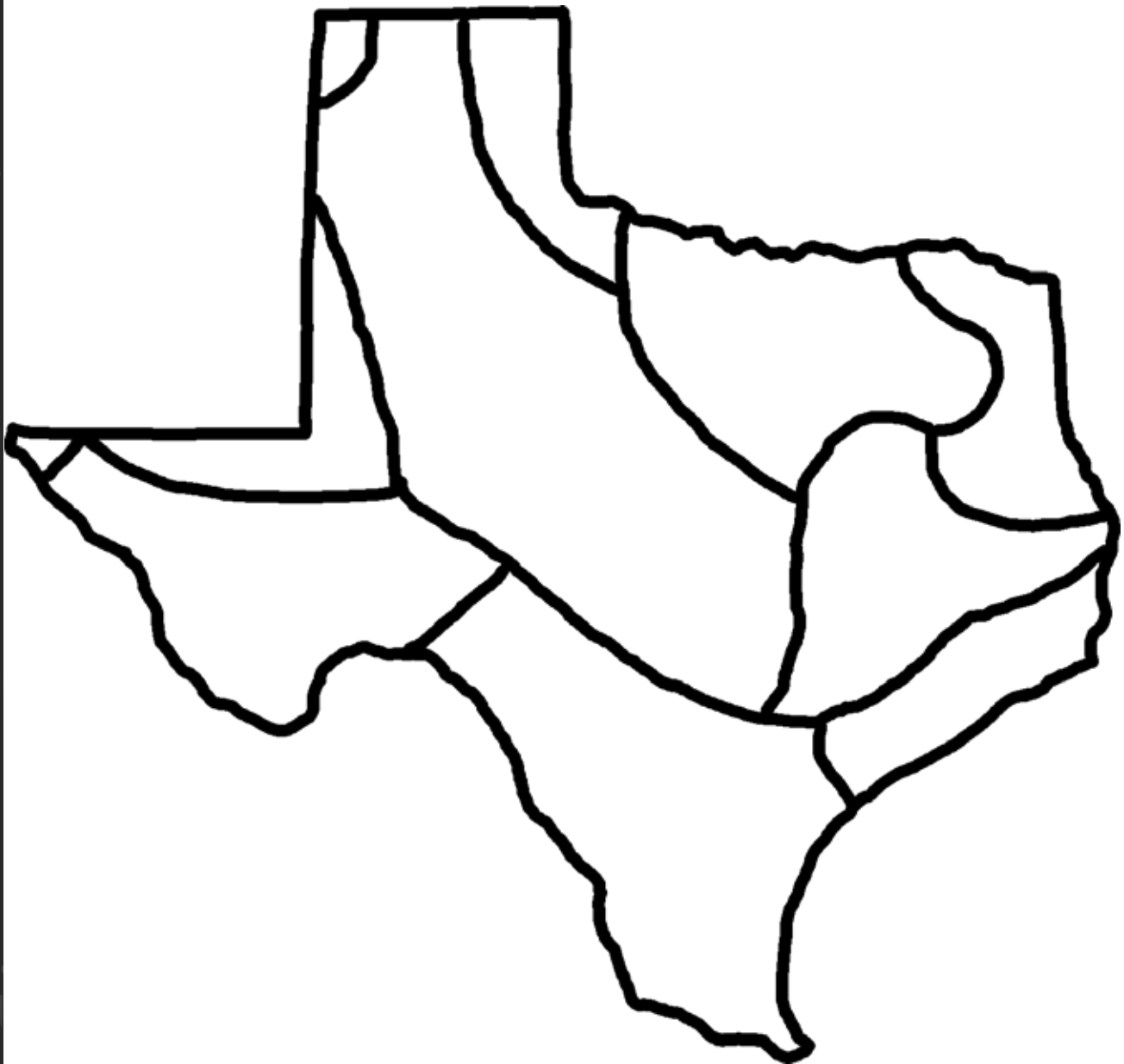
- AMERICAN INDIANS OF TEXAS: MAP HANDOUT
- AMERICAN INDIANS OF TEXAS: CARD SORT
- AMERICAN INDIANS OF TEXAS: GRAPHIC ORGANIZER

# American Indians of Texas Map Handout

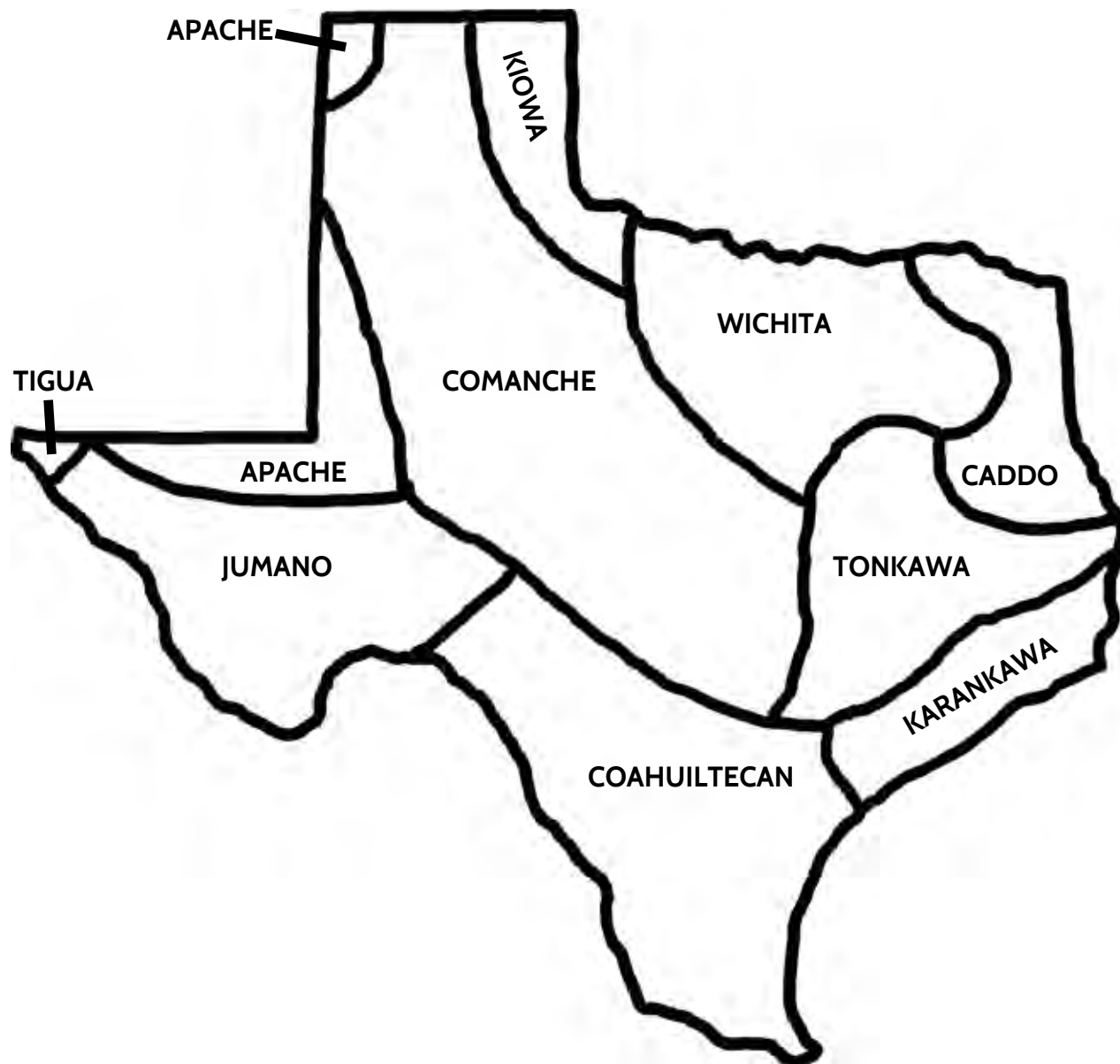
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS

Use the mapping resources to label the locations of the American Indian tribes of Texas. This map is a generalized map of where American Indian tribes were located in the 1600s to 1800s. It is a representation of where these groups were most likely concentrated during the European contact period.







# American Indians of Texas - Card Sort

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS

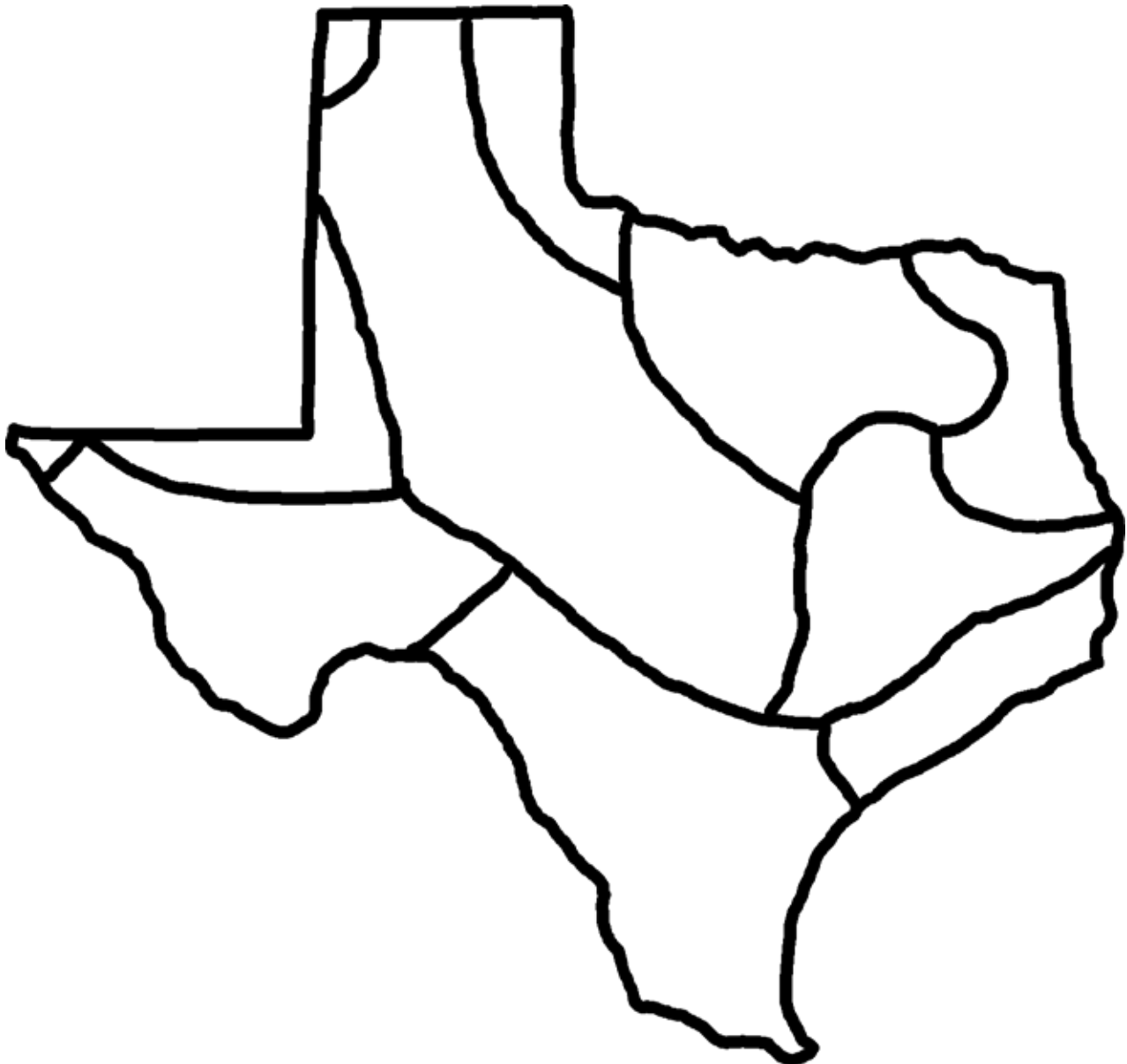
Based on the map, complete the American Indian card sort by using what you know about climate and geography.

**GULF COAST- RED**

**PLAINS- GREEN**

**PUEBLOAN- BLUE**

**SOUTHEASTERN TEXAS- ORANGE**



## KARANKAWA

- Nomadic, hunters, gatherers
- Used dugout canoes to fish and hunt small animals
- Coastal dwellers who ate shellfish



## COAHUILTECAN

- Nomadic, hunters, gatherers
- Ate insects and small animals
- Prickly pear (*tuna*) was a staple of their diet



## TONKAWA

- Nomadic, hunters, gatherers
- Used dugout canoes to fish and hunt small animals
- Some farming



## COMANCHE

- Nomadic and used horses for transportation
- Dependent on buffalo, fierce warriors
- Used every part of the buffalo
- Lived in tipis





## APACHE

- Nomadic, dependent on buffalo, fierce warriors
- Used buffalo hide as protection for the harsh landscape
- Lived in farming communities along rivers and streams called rancherias for part of the year



## KIOWA

- Nomadic, dependent on buffalo, fierce warriors
- Recorded oral histories in their tipis
- Developed a calendar
- Made beautiful crafts



## JUMANO

- Sedentary for part of the year
- Traveled and traded goods for part of the year
- Lived in adobe houses



## TIGUA

- Sedentary, farmers
- Lived in adobe houses
- Known for beautiful pottery
- Complex social systems



## **CADDO**

- Extensive farming communities
- Complex social systems
- Built dome-shaped huts
- Organized government system led by a chief
- Women played important roles in government
- Greeted Europeans with the word "Tejas," which means "friends"



## **WICHITA**

- Sedentary, food-rich environment
- Complex social systems
- Hunted buffalo and grew crops
- Known for the tattoos around their eyes: "raccoon eyes"



# American Indian Tribes of Texas - Graphic Organizer

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS

Complete the graphic organizer based on the information you have learned from the American Indian Tribes of Texas Map and Card Sort. You need to make 1 geographic connection for each region of Texas.

**GULF COAST- RED**

**PLAINS- GREEN**

**PUEBLOAN- BLUE**

**SOUTHEASTERN TEXAS- ORANGE**

AMERICAN INDIAN TRIBE	CHARACTERISTICS	GEOGRAPHIC CONNECTION
<b>KARANKAWA</b>	<ul style="list-style-type: none"> <li>Nomadic, _____, gatherers</li> <li>Used dugout _____ to fish and hunt small _____</li> <li>_____ dwellers who ate shellfish</li> </ul>	
<b>COAHUILTECAN</b>	<ul style="list-style-type: none"> <li>_____, hunters, _____</li> <li>Ate _____ and small animals</li> <li>Prickly pear _____ was a staple of their _____</li> </ul>	
<b>TONKAWA</b>	<ul style="list-style-type: none"> <li>Nomadic, hunters, _____</li> <li>Hunted small _____, _____ in dugout canoes</li> <li>Some _____</li> </ul>	
<b>COMANCHE</b>	<ul style="list-style-type: none"> <li>_____ and used horses for _____</li> <li>Dependent on _____, fierce _____</li> <li>Used every part of the _____.</li> <li>Lived in _____.</li> </ul>	
<b>APACHE</b>	<ul style="list-style-type: none"> <li>Nomadic, dependent on _____, fierce warriors</li> <li>Used buffalo hide as protection from the harsh _____</li> <li>Lived in _____ along rivers and streams called _____ for part of the year</li> </ul>	



# American Indian Tribes of Texas - Graphic Organizer

**GULF COAST- YELLOW**

**PLAINS- GREEN**

**PUEBLOAN- BLUE**

**SOUTHEASTERN TEXAS- ORANGE**

AMERICAN INDIAN TRIBE	CHARACTERISTICS	GEOGRAPHIC CONNECTION
<b>KIOWA</b>	<ul style="list-style-type: none"> <li>• _____, dependent on _____, fierce _____</li> <li>• Recorded oral _____ in their _____.</li> <li>• Developed a _____</li> <li>• Made beautiful _____.</li> </ul>	
<b>JUMANO</b>	<ul style="list-style-type: none"> <li>• _____ and lived in _____ houses for part of the year</li> <li>• _____ and traded _____ for part of the year</li> <li>• Lived in _____ houses</li> </ul>	
<b>TIGUA</b>	<ul style="list-style-type: none"> <li>• Sedentary _____</li> <li>• Lived in adobe _____</li> <li>• Known for their beautiful _____</li> <li>• Complex _____ systems</li> </ul>	
<b>CADDO</b>	<ul style="list-style-type: none"> <li>• Extensive _____ communities</li> <li>• Complex _____ systems</li> <li>• Built _____ shaped huts</li> <li>• Organized _____ system led by a _____</li> <li>• _____ played important roles in government</li> <li>• Greeted Europeans with the word _____, which means "friends"</li> </ul>	
<b>WICHITA</b>	<ul style="list-style-type: none"> <li>• Sedentary, _____ environment</li> <li>• _____ social systems</li> <li>• Hunted _____ and grew _____</li> <li>• Known for _____ around their eyes, "_____ eyes"</li> </ul>	



## ACTIVITY 4

### *Timeline of Texas*

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#### **PORCH TALK: A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

##### **Topic**

Sequencing events in Texas

##### **Objective**

Students will analyze images and put them in the chronological order they think is best. Students will then match information with the images in order to create an annotated timeline.

##### **Texas Essential Knowledge and Skills (TEKS):**

7.1B, 7.19A, 7.20A, 7.20B, 7.20C, 7.22C

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## Timeline of Texas

**CONTENT AREA:** Social Studies

**TOPIC:** Sequencing events in Texas

### ACTIVITY MATERIALS:

- TIMELINE IMAGES (PAGE A4-3): 1 PER STUDENT OR STUDENT GROUP
- TIMELINE INFORMATION (PAGE A4-4 TO A4-7): 1 PER STUDENT OR STUDENT GROUP
- TEXAS TIMELINE HANDOUT (PAGE A4-8): 1 PER STUDENT
- DYKEMA CANYON BURIAL SITE QUESTION HANDOUT (PAGE A4-9): 1 PER STUDENT
- QCER SENTENCE STEMS HANDOUT (PAGE A4-10): 1 PER STUDENT OR STUDENT GROUP

### READING STRATEGY:

- Put students into groups of 5. Each student will be responsible for reading and fact finding a section of the reading (Periods of Prehistoric Occupation, Plains Village People, Curiosity, Burned Bone Fragments, Dykema Canyon Burial Site).
- Give each student a sticky note to write down any facts or information they feel will be important for the group.
- After students are done reading, they will each have 1 minute to share the information on their sticky note from their section of reading during a table talk.

### ACTIVITY INSTRUCTIONS:

1. Have each student group put the timeline images in the chronological order they feel is best.
2. Have each student group match the information with the image it best fits to create an annotated timeline.
3. Each student will complete their timeline handout. Students will have a writing assignment that requires them to analyze a question, establish a claim, identify evidence, and provide reasoning to justify their claim. Student and teacher support materials are included in the handout.

# Timeline of Texas



## SECURITY BRIEFING –

### WORDS OF WISDOM FROM HANK THE COWDOG:

*Well, it's me again, Hank the Cowdog. Dogs do not have a great sense of time. The only time that I keep up with is feeding time on the ranch. My humans think it is important to understand time, so they know when to move their herds and when winter is coming. They also think it is important for us to understand that other people lived on this ranch a long time ago. Analyze the images and the text to see if you can help me figure out when these people walked this neck of the woods.*

### ACTIVITY INSTRUCTIONS:

1. Put the timeline images in the chronological order you feel is best.
2. Match the information with the image it best fits to create an annotated timeline.
3. Complete the timeline handout.

### MATERIALS:

- TIMELINE IMAGES
- TIMELINE INFORMATION
- TEXAS TIMELINE HANDOUT

## Timeline Images

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

**INSTRUCTIONS:** Place the images in chronological order.





# Timeline Information

## **ARCHAIC PERIOD (2000 BC TO 500 AD)**



## **WOODLAND PERIOD (500 TO 1100)**





# Timeline Information

## **PLAINS VILLAGE (1200 TO 1450)**



## **APACHE AND COMANCHE TRIBES ON THE PLAINS (1200 TO 1800)**



# Timeline Information

## **MAPPING OF THE TEXAS COAST 1ST MAINLAND SPANISH SETTLEMENT (1519)**



## **FOUNDING OF SAN ANTONIO (1718)**



# Timeline Information

**INSTRUCTIONS:** Match the information with the image that best fits.

Sites from this period tend to be rich in cultural material because people were living in permanent structures and producing trash. They hunted bison and were raising corn in garden plots. The material includes two styles of side-notched points, the Washita and Harrell, considerable pottery, four bladed knives, bison-bone farming tools, and nonlocal materials such as shell beads and obsidian.

San Antonio de Valero, one of five Spanish missions established by Franciscans in what is now San Antonio. In 1716 Olivares received approval from the Marques de Valero, recently appointed viceroy of New Spain, for a plan to remove to San Antonio the dwindling mission of San Francisco Solano, founded in 1700 near the right bank of the Rio Grande at the site of present Guerrero, Coahuila. After considerable delay, Olivares and Alarcon traveled separately to San Antonio in the spring of 1718. Mission San Antonio de Valero was founded on May 1 and followed four days later by the nearby San Antonio de Bexar Presidio and the civil settlement, Villa de Bexar.

These nomadic hunter-gatherer people never stayed long in one place and built no permanent structures, so they didn't leave much behind. They used the atlatl instead of bows and arrows and they didn't make pottery. The main diagnostic of an Archaic site is the dart point, which is larger and not as finely made as the arrow points that came later, and of course an Archaic site contains no ceramic material.

Early in 1520 the pilots who had sailed the previous year with Alonso Alvarez de Pineda laid before the Spanish crown an outline sketch of the Gulf of Mexico. This crude rendering, which survives in the Archivo General de Indias in Seville, represents the beginning of the Spanish mapping of Texas. A true cartographic landmark, it was the first European map portrayal of the Gulf based on actual exploration, as well as the first to show and part of what is now the state of Texas – hypothetical concepts of the Gulf of Mexico before its actual discovery notwithstanding.

These American Indian tribes were nomadic and dependent on hunting buffalo. They were fierce warriors who lived in tipis. These tribes lived in farming communities along rivers and streams called rancherias for part of the year. They became exceptional horse people and migrated into Texas in order to hunt bison and capture the wild horses that roamed the land. They eventually claimed vast areas of north, central, and west Texas.

Woodland people had acquired bow-and-arrow technology, and the main diagnostic for a Woodland site is a triangular-shaped, corner-notched arrow called the Scallorn. Woodland sites contain a small amount of ceramic material. They were making pottery. Woodland houses are rare in my part of the Panhandle, but they've been reported in Late-Woodland sites to the south of us (Palo Duro), in western Oklahoma (Custer), and in southeastern Colorado (Graneros). (Actually, we excavated a Woodland house at Indian Springs, but that's another story, a long one.)



# Texas Timeline

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS:

Write summaries of these time periods based on the Texas Timeline Images and Information.



# Dykema Canyon Burial Site

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## QUESTION:

Where in the timeline would you put the Dykema Man? Justify your answer with information from the text and the timeline.

## DYKEMA CANYON BURIAL SITE NOTES:

### Question-Claim-Evidence-Reasoning

Question: What are you being asked?



\_\_\_\_\_

Claim: State a direct response to the question/prompt.



\_\_\_\_\_

Evidence: Provide information that supports your claim.



Reasoning: Explain why the evidence supports the claim by providing connections.



Evidence #1

Reasoning #1

Conclusion: Restate your claim, summarize your evidence, and explain your reasoning.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Dykema Canyon Burial Site

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

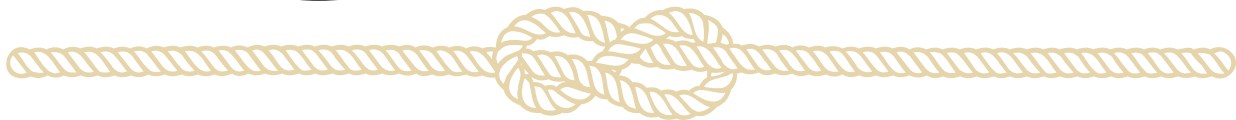
## Question - Claim - Evidence - Reasoning

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C

What do I know?

- I observed \_\_\_\_\_ when \_\_\_\_\_.
- I compared \_\_\_\_\_ and \_\_\_\_\_.
- \_\_\_\_\_ happened when \_\_\_\_\_.
- The effect of \_\_\_\_\_ on \_\_\_\_\_ is \_\_\_\_\_.
- I agree/disagree with \_\_\_\_\_.
- \_\_\_\_\_ is true/false when \_\_\_\_\_.
- \_\_\_\_\_ will sometimes/never/always be \_\_\_\_\_.



E

How do I know it?

- I know that \_\_\_\_\_ is \_\_\_\_\_ because \_\_\_\_\_.
- An example of \_\_\_\_\_ is \_\_\_\_\_.
- For instance, \_\_\_\_\_ shows \_\_\_\_\_.
- Based upon \_\_\_\_\_, \_\_\_\_\_.
- According to the text \_\_\_\_\_.
- From the quote/text/map/graph, I know \_\_\_\_\_.



R

How does evidence support my claim?

- This shows...
- This means...
- This confirms...
- As a result...
- Consequently...
- This expresses the idea that...
- For example...





## ACTIVITY 5

### *Tools of the Trade*



**PORCH TALK:**  
**A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

**Topic**  
Archaeology in Action

**Objective**  
Students will identify what tools they would need to complete an archaeological dig in their backyard or neighborhood.

**Texas Essential Knowledge and Skills (TEKS):**  
7.8B, 7.8C, 7.19A, 7.20A, 7.20B, 7.20C





## Tools of the Trade

**TOPIC:** Archaeology in Action

**ACTIVITY MATERIALS:**

- TOOLS OF THE TRADE HANDOUT (PAGE A5-3): 1 PER STUDENT OR STUDENT GROUP
- GALLERY WALK IMAGES (PAGE A5-4-TO A5-9)
- ARCHAEOLOGY TOOLS LIST (PAGE A5-10)

**READING STRATEGY:**

- Students read the Hank's House section of the book and underline every tool that is mentioned.
- Students then complete a round robin table talk to share all of the archaeological tools they identified in the text.

**ACTIVITY INSTRUCTIONS:**

1. Have each student group (groups of 3 to 4) identify what region of Texas they live in and the geographic features of that land.
2. Each student group will make a list of tools they feel they would need in order to conduct their archaeological dig.
3. Students will then conduct a gallery walk with their group members to analyze images of archaeological digs to see what tools were used and if they should add them to their list. This activity provides numerous images for students to analyze. Feel free to use all of the images or choose the images you feel would be best for the learning of your students.
4. Optional Extension: Read from the Archaeology TOOL LIST and have students check off all the items they wrote down from their gallery walk. See which student/student group identified the most tools. Were there any tools that they identified that were not on the list?

*\* Teacher Tip: Please reference Activity 2 for background information on regional climate and geography.*

# Tools of the Trade



## SECURITY BRIEFING –

### WORDS OF WISDOM FROM HANK THE COWDOG:

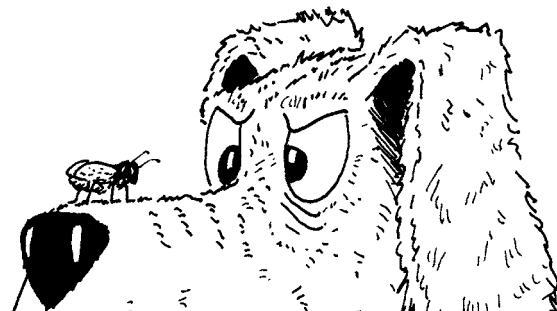
*It's me again, Hank the Cowdog. Now you humans aren't lucky enough to have the tools that are built into my paws. When I smell a delicious old bone, I can use my paws and sniffer to dig out that delicious treat in no time. On the other paw, you humans have to use tools. If you were to conduct an archaeological dig in your backyard or neighborhood, what tools would you need?*

### ACTIVITY INSTRUCTIONS:

1. In groups of 3 to 4, identify what region of Texas you live in and the geographic features of that land.
2. Make a list of tools you would need in order to conduct an archaeological dig.
3. Conduct a gallery walk with your group members to analyze images of archaeological digs to see what tools were used and if you should add them to your list.
4. Read from the Archaeology TOOL LIST and check off all the items you wrote down from the gallery walk. Were there any tools that you identified that were not on the list?

### ACTIVITY MATERIALS

- TOOLS OF THE TRADE HANDOUT
- GALLERY WALK IMAGES
- Archaeology TOOLS LIST



# Tools of the Trade

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS:

Identify the region of Texas you live in and the geographic features of that land.

List tools needed for a dig.



Region of Texas:

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Geographic Features:

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## TOOLS NEEDED FOR A DIG





# Gallery Walk



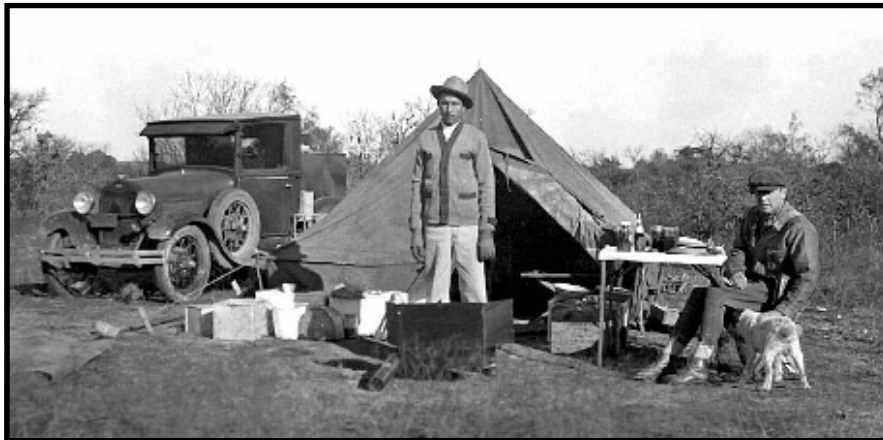
In the 1970s, Meeks Etchieson was one of the most active government archaeologists to be stationed in the Texas Panhandle. Etchieson, who worked for the U.S. Bureau of Reclamation, carried out surveys and salvage excavations on federal land around Lake Meredith. Photo by Chris Lintz.

Excavations underway at the Chicken Creek site in the winter of 1983 to salvage information about this small Antelope Creek site before it was destroyed by erosion. Photo courtesy U.S. Bureau of Reclamation.



Archaeologists expose the remains of Antelope Creek houses that once stood atop Landergin Mesa in 1984. Photo courtesy Chris Lintz.

# Gallery Walk



E.B. "Ted" Sayles' camp on January 1, 1932 at the outset of his ambitious archaeological survey of Texas. Sayles is sitting and petting his dog Happy. The other man is his field assistant, John (Juan) Olguin. TARL archives.



Jack Hughes working with volunteers at a dig on an Antelope Creek site on the Marsh Ranch in the late 1960s. Photo by Rolla Shaller.



Jack Hughes (left), Alex Krieger (center), and Charles Steen at the Midland site in 1953 soon after a partial human skeleton was found there in apparent association with Paleoindian artifacts. Krieger was Hughes' mentor dating back to the early 1940s. Photo by Fred



# Gallery Walk



Archaeologist John Dockall working in the laboratory, washing artifacts found at a historic site, October 2020. Once the artifacts are cleaned, they can be labeled, identified, and catalogued. Photograph by Doug Boyd.



Archaeologist Eloise Gadus is measuring the thickness of a ceramic sherd, October 2020. The size and thickness of ceramic sherds are important details that she will record in her written descriptions of the pottery for the archaeological report. Photo by Doug Boyd.



Archaeologist John Dockall is doing library research, October 2020. He is reading to find out about other archeological sites that have been investigated in the region where he works. Photograph by Doug Boyd.

# Gallery Walk



Using a toothbrush to carefully clean animal bones in the laboratory, October 2020. By studying the bones found in sites, archaeologists can learn what animals people were hunting and what parts of the animal they were using for food. Photograph by Doug Boyd.



In the laboratory, archaeologist John Dockall is using a microscope to examine the “use wear” on a stone tool, October 2020. Think of a knife blade used to whittle wood. It eventually gets dull, and this dulling of the blade edge is “use wear.” By looking at the chopping and cutting edges of stone tools, archaeologists can determine what the tools were used for. Photograph by Doug Boyd.



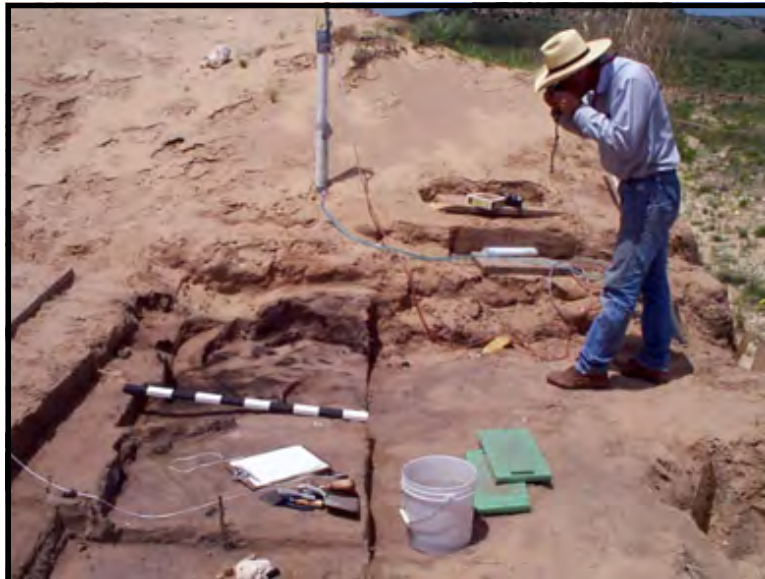
An accurate scale is used to determine the weight of a stone tool, October 2020. Along with measurements, weight is an important observation that helps archaeologists understand how stone tools were made and used. Photograph by Doug Boyd.



# Gallery Walk



Archaeologist Doug Wilkens is drawing a profile of the vertical wall of the excavation unit in the West Pasture, May 2006. A vertical profile drawing helps archeologists document and understand the site stratigraphy (layers of deposits). Photograph by Doug Boyd.



Archaeologist Doug Wilkens is taking photographs of burned branches on the floor at Hank's site, May 2001. The long stick is a 1-meter scale with 10-cm increments painted in black and white.



Archaeologist Doug McGarraugh is using a trowel and a small shovel to excavate in the West Pasture, May 2006. Photograph by Doug Boyd.

# Gallery Walk



Archaeologist Doug Wilkens is photographing a store pit found in the West Pasture, May 2006. The dark-colored sediment in the bottom of the pit is rich in charcoal, discarded bones, and stone tools. Photograph by Doug Boyd.

Archaeologists Bill (left) and Jean (right) Parnell documenting a rock feature in the West Pasture, May 2006. Jean is using a string grid (a 1-meter square with strings at 10-cm increments) to help her draw a map of the rocks. Photograph by Doug Boyd.



Archaeologists Bob Smith (left) and Wayne Benson (right) are screening sediment excavated from an archaeological site in the West Pasture, May 2007. They are using a wire screen that recovers artifacts. Photograph by Doug Boyd.

# Archaeology Tools List

## **DIGGING TOOLS:**

- Shovel
- Trowel
- Brushes
- Dustpan (for scooping up excavated sediment)
- Bamboo sticks (for digging bone – bamboo is softer than wood and doesn't scratch bone)
- Nails or wooden stakes and string (for laying out excavation units)
- Buckets (for carrying excavated sediment to the screen)
- Screen (usually 1/4 inch mesh)
- Tin foil (for wrapping charcoal samples for radiocarbon dating)

## **DOCUMENTING TOOLS:**

- Clipboard and pencil (we use pencil because it is more stable than ink for long-term preservation)
- Paper forms (for excavation units and levels)
- Graph paper (for mapping items within units)
- Ruler (for measuring and mapping on graph paper)
- String grid (a 1x1-m wood frame with strings at 10-cm intervals for quick mapping)
- Tape measure and line level (for mapping items on graph paper and recording depth or elevation)
- Camera (digital) and photo scales
- Surveying equipment (an electronic total station used to map site data)
- A laser level on a tripod (for measuring depth or elevation)
- Aerial drone with camera (for taking overhead shots of archaeological features)

## **LABORATORY AND ANALYSIS TOOLS:**

- Wash tubs and brushes (for cleaning artifacts)
- Ink pens and PVA (polyvinyl acetate) (for putting catalog numbers on artifacts)
- Calipers (used to measure artifacts)
- Scale (used to weigh artifacts)
- Computer
  - Used to create artifact inventories (spreadsheets)
  - Used with GIS programs to do spatial analysis of data
  - Used to write reports
  - Used to do online library research (find other archaeological reports)







## ACTIVITY 6

### *Making Hank's House*



**PORCH TALK:**  
**A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

**Topic**  
Utilizing Land

**Objective**  
Students will use geography and climate to explain why Picket-Post earth lodges were used in the Texas Panhandle. Students will then create a miniature version of Hank's Picket-Post House.

**Texas Essential Knowledge and Skills (TEKS):**  
7.8B, 7.9A, 7.19A, 7.20A, 7.20B, 7.22C





## Making Hank's House

**TOPIC:** Utilizing Land

### ACTIVITY MATERIALS:

- IMAGES AND DIAGRAMS (PAGE A6-7)
- MAKING HANK'S HOUSE HANDOUT (PAGE A6-8 - A6-9): 1 PER STUDENT OR STUDENT GROUP
- MATERIAL SUGGESTIONS (FEEL FREE TO USE ITEMS FROM AROUND YOUR HOUSE OR CLASSROOM THAT YOU THINK WOULD WORK)
  - ROLLED PAPER
  - POPSICLE STICKS
  - TOOTHPICKS
  - TAPE
  - GLUE
  - TOILET PAPER/HAND TOWEL ROLLS
  - QCER HANDOUT (PAGE A6-10)

### READING STRATEGY:

- Students read the Picket-Post earth lodges in Oklahoma and Texas section of the book.
- Students then discuss this question with a partner or small group: What evidence was given to justify Hank's House as a Picket-Post House?

### ACTIVITY INSTRUCTIONS:

1. Students use the images and diagrams of Picket-Post earth lodges in order to create a miniature version of Hank's House.
2. Students record their process through notes and pictures.

# Making Hank's House



## SECURITY BRIEFING –

### WORDS OF WISDOM FROM HANK THE COWDOG:

*It's me again, Hank the Cowdog. Now people who lived a long time ago did not have a lot of the technology that we have today, but they were still able to build homes and live off of the land. There is even evidence of people of the past being smart enough to have dogs. See if you have the tools and the smarts to build my house on the land you are living on now.*

### ACTIVITY INSTRUCTIONS:

1. Use the images and diagrams of Picket-Post earth lodges in order to create a miniature version of Hank's House.
2. Record your process through notes and pictures.

### MATERIALS:

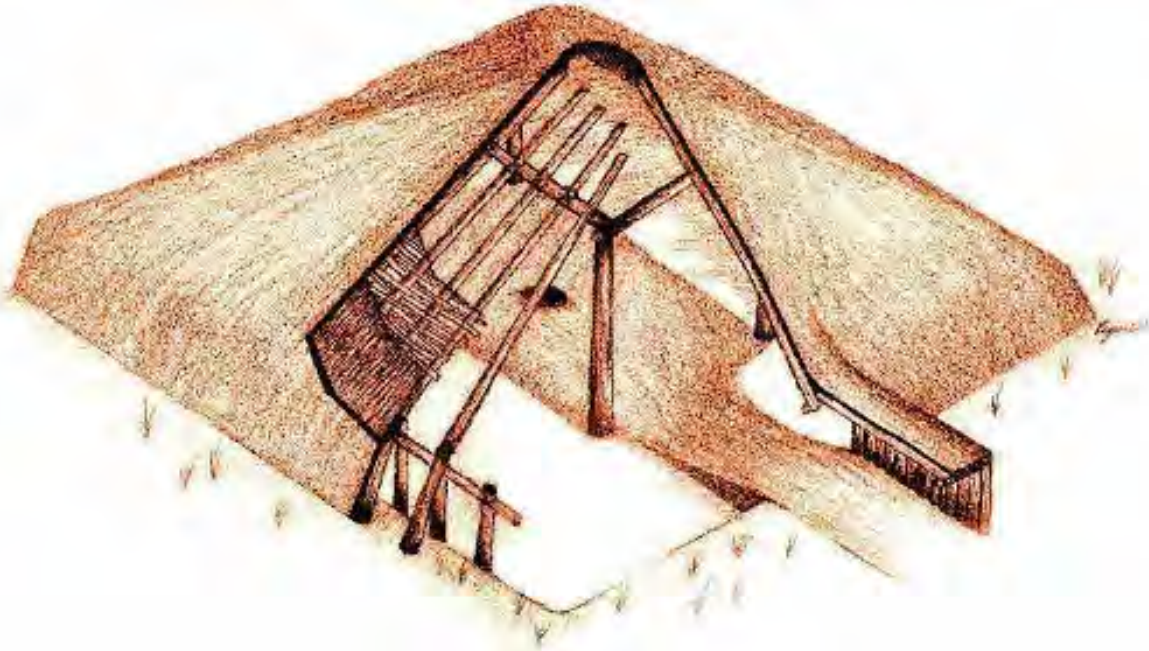
- MAKING HANK'S HOUSE HANDOUT
- HOUSEHOLD AND OUTDOOR MATERIALS



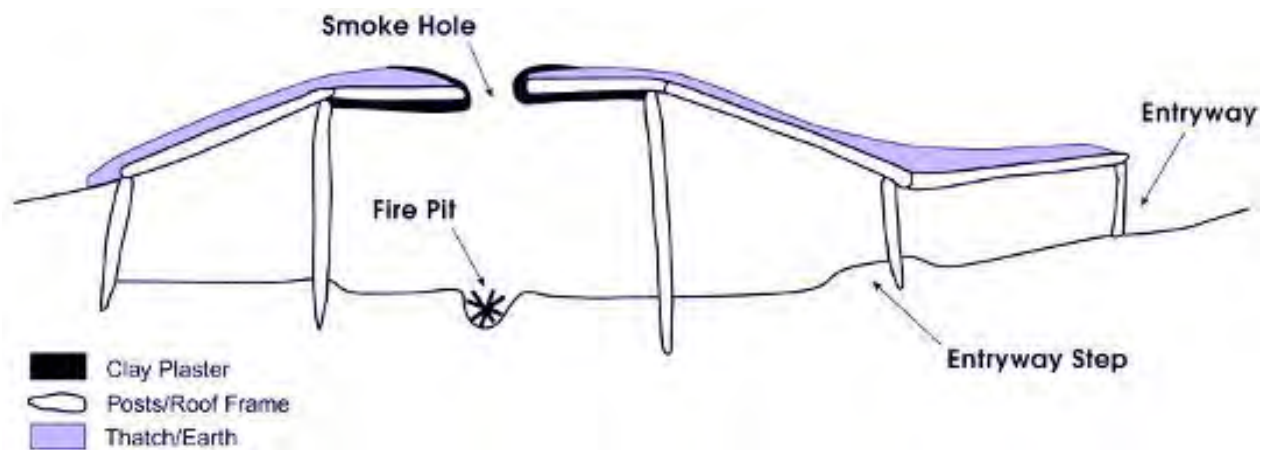
# Making Hank's House



## IMAGES AND DIAGRAMS OF HANK'S HOUSE



Artist's depiction of cut-away view of Hank's House as it might have looked 700 years ago. Drawing by Ryan Wilkens.



Artist's reconstruction of cross-section through Hank's House depicted with a relatively low roof. Graphic by Sandy Hannum, courtesy Cox/McLain Environmental Consultants, Inc.



# Making Hank's House



## IMAGES AND DIAGRAMS OF HANK'S HOUSE

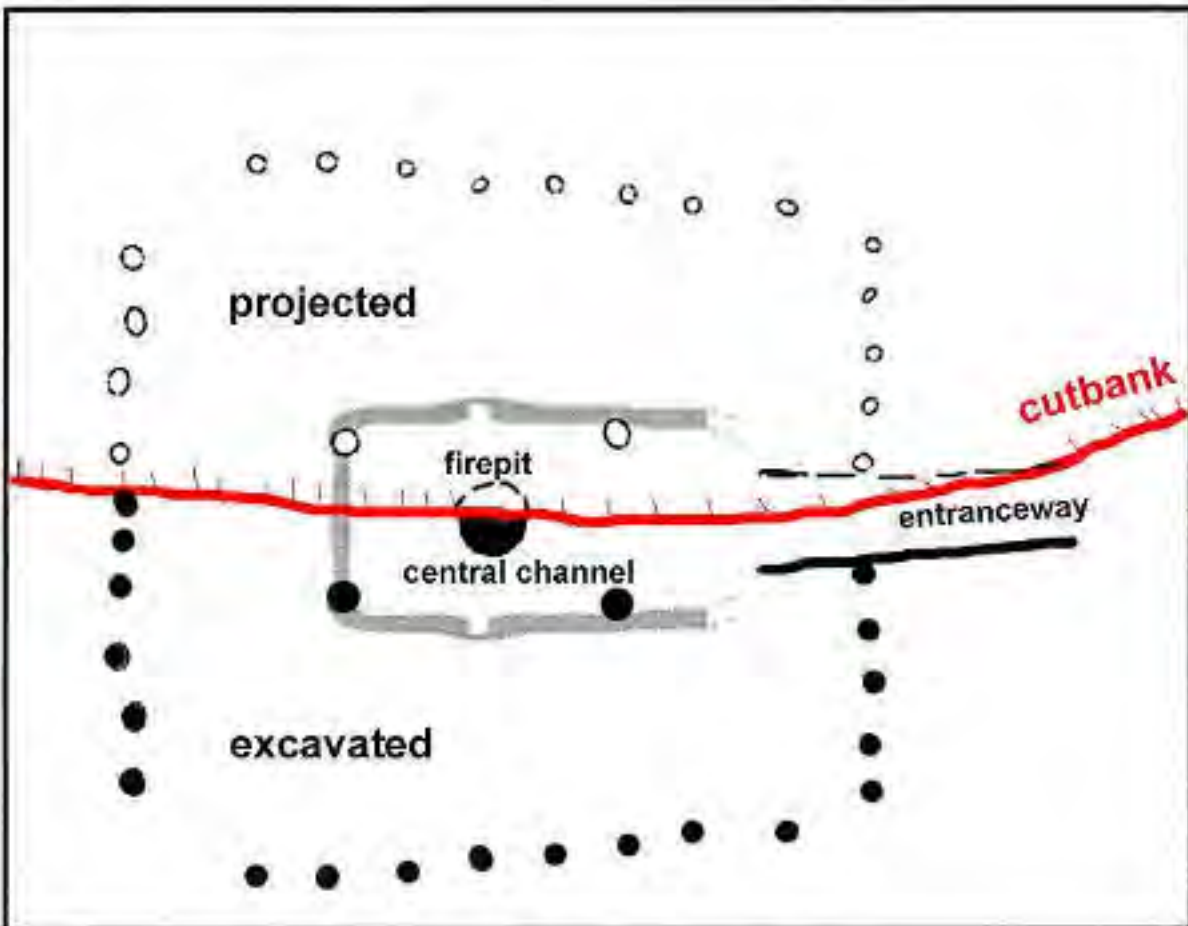


Diagram of Hank's House with the cutbank outline. This image contains the actual amount of posts used to create Hank's House.



Artist's depiction of Hank's House as it might have looked 700 years ago. Drawing by Ryan Wilkens.



# Making Hank's House

**IMAGES OF THE CONSTRUCTION AND BURNING OF AN EARTH LODGE MODEL, RECONSTRUCTED BASE ON AN EARTH LODGE EXCAVATED AT THE TALKING CROW SITE IN SOUTH DAKOTA. FROM SMITH 1977.**



The basic structural framework of the earth lodge is constructed within a shallow pit.



The framework is completed. Next, layers of grass will be added and then a thick layer of earth.



# Making Hank's House

**IMAGES OF THE CONSTRUCTION AND BURNING OF AN EARTH LODGE MODEL, RECONSTRUCTED BASE ON AN EARTH LODGE EXCAVATED AT THE TALKING CROW SITE IN SOUTH DAKOTA. FROM SMITH 1977.**



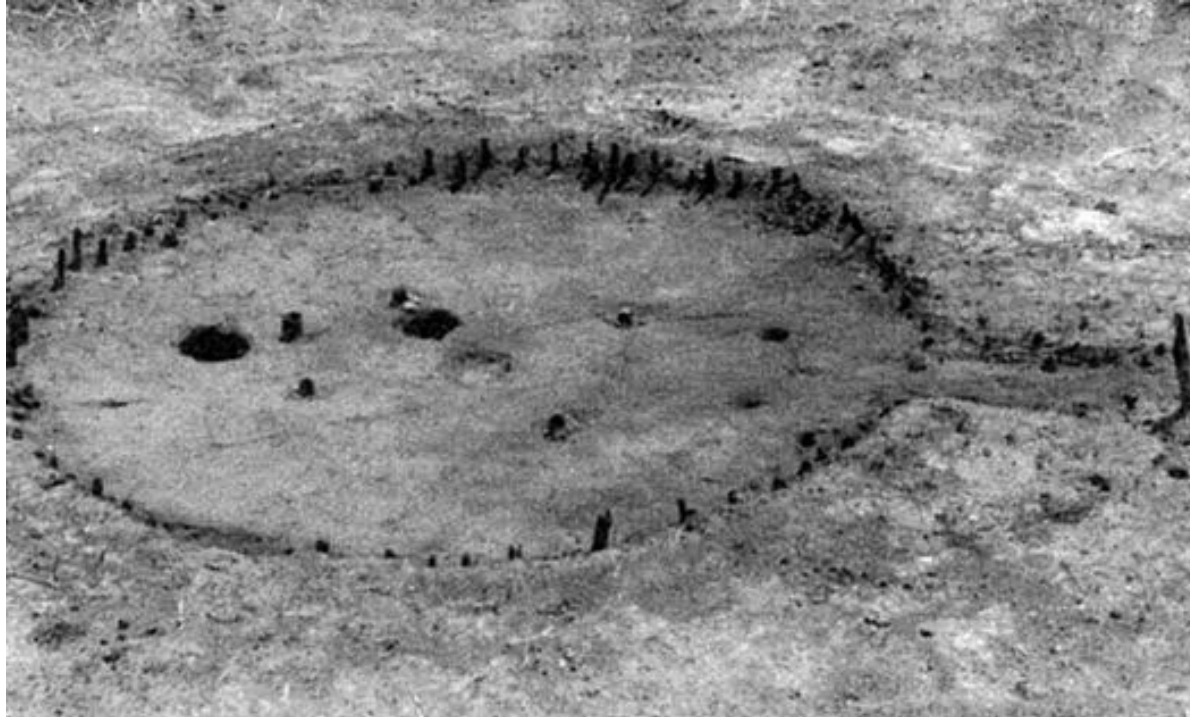
The completed earth lodge. Note human figure in doorway for scale.



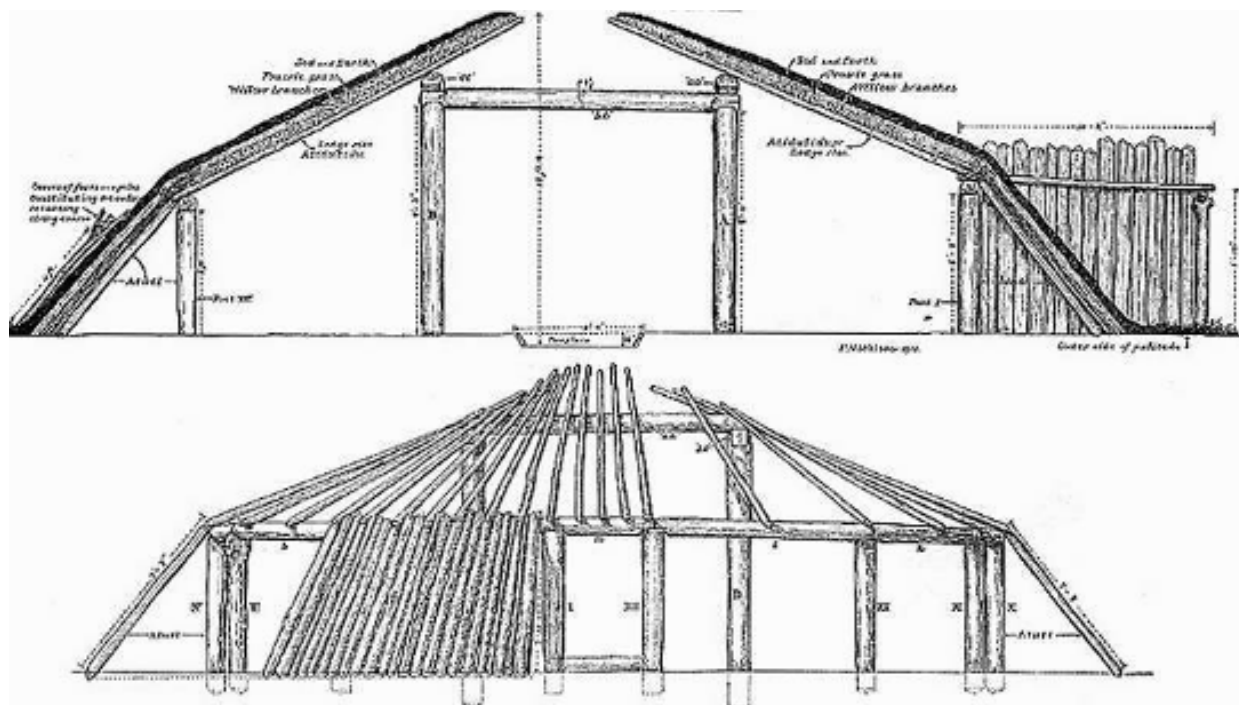
Fire has gutted the earth lodge, causing the roof to collapse. The walls remain partially intact.

# Making Hank's House

**IMAGES OF THE CONSTRUCTION AND BURNING OF AN EARTH LODGE MODEL, RECONSTRUCTED BASE ON AN EARTH LODGE EXCAVATED AT THE TALKING CROW SITE IN SOUTH DAKOTA. FROM SMITH 1977.**



Following simulated weathering, the burned earth lodge was swept out, revealing the charred stumps of posts. The experimental pattern closely resembled the archaeological pattern seen at the Talking Crow site. Although Hank's House is much smaller and rectangular instead of round, it shares many similarities.



Cross-sections through a historic Hidatsa earth lodge in South Dakota. From Wilson, 1934.

# Making Hank's House



## CONSTRUCTION PROCESS

When you were ready to start construction, many people were needed to help and someone had to be in charge of the entire operation. In modern terms, this person functioned as the general contractor to oversee all phases of the house building and direct the work. Among the Hidatsa, lodge building was a community effort, and a respected elder woman was put in charge. The family who would live in the lodge was expected to throw a feast for everyone when the house building was completed (the same practice was followed by the Caddo, the Wichita and other Caddoan groups). But before you could feast, you had to build the house. The steps in the construction process are outlined below:

### (1) Preparation

- Select the house location.
- Gather all of the juniper posts that were previously dried and cured at the construction site.
- Cut and gather hundreds of small branches, 0.5 to 1 inch diameter and various lengths, for the roof.
- Cut and gather hundreds of bundles of yellow Indian grass for use in the roof.
- Gather lots of rope—strips of buffalo hide, tree bark, or twisted plant fibers—for use in lashing poles together.

### (2) Prepare Foundation and Construct Frame

- Dig a rectangular pit the size of the house about 3 feet deep, piling the dirt around the edges.
- Dig the deep holes for the four central posts (the main roof support posts).
- Set the four central posts into the holes and pack soil around them until they are firmly planted.
- Set the framework of four horizontal stringer beams that rest on top of the four central posts. (The Hidatsa considered the four central posts and beam frame on top to be sacred.)
- Dig the post holes for all of the wall posts around the edges of the pit.
- Set all of the wall posts firmly in place.
- Set the framework of horizontal stringers that form the top of the walls.

### (3) Construct Roof

- Set roof rafters, each one extending from a wall stringer to a central stringer.
- Construct a small framework to form a smoke hole at the top of the roof.
- Set small branches (juniper, elm, and other woods) perpendicular to the rafters to form a solid single layer.
- Add a layer of yellow Indian grass, 2 to 4 inches thick, by lashing closely spaced bundles atop the small branches. The grass runs perpendicular to the small branches and parallel to the rafters.
- Add layer of sod (topsoil layer held together by roots), probably 4 to 6 inches thick, on top of the bundled-grass layer.

### (4) Construct Entrance

- Dig the ramped entryway.
- Dig and set vertical posts and horizontal stringers to form the entryway frame.
- Set vertical slats to form entryway walls.
- Add clay plaster to the entrance ramp and entryway step.
- Add clay plaster to lower interior walls.

### (5) Finish Interior

- Dig out a few inches of soil from rectangular area to create the central channel.
- Dig the central fire hearth and line it with moist clay.
- Add clay plaster along the edge of the channel to strengthen the channel lip.
- Add clay plaster to the interior ceiling around the smoke hole for fire safety.

### (6) Celebrate Completion with Feast



# Making Hank's House



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## MY PROCESS FOR CREATING HANK'S HOUSE

STEPS	NOTES
STEP 1	
STEP 2	
STEP 3	
STEP 4	
STEP 5	
STEP 6	
STEP 7	
STEP 8	
STEP 9	
STEP 10	
STEP 11	
STEP 12	
STEP 13	
STEP 14	
STEP 15	



# Making Hank's House



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## QUESTION:

Why were Picket-Post earth lodges used in the Texas Panhandle? Use geography and climate to explain your answer.

## Question-Claim-Evidence-Reasoning

Question: What are you being asked?



\_\_\_\_\_  
\_\_\_\_\_

Claim: State a direct response to the question/prompt.



\_\_\_\_\_  
\_\_\_\_\_

Evidence: Provide information that supports your claim.



Reasoning: Explain why the evidence supports the claim by providing connections.



Evidence #1

Reasoning #1

Conclusion: Restate your claim, summarize your evidence, and explain your reasoning.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## ACTIVITY 7

### *Weather Simulation for Hank's House*



**PORCH TALK:  
A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

**Topic**

Impact of Weather

**Objective**

Students will use their miniature version of Hank's Picket-Post House to conduct weather simulations

**Texas Essential Knowledge and Skills (TEKS):**

7.8B, 7.9A, 7.19A, 7.20A, 7.20B, 7.22C





## *Weather Simulation for Hank's House*

**TOPIC:** Impact of Weather

**ACTIVITY MATERIALS:**

- WEATHER SIMULATION: RAIN HANDOUT (PAGE A7-3): 1 PER STUDENT OR STUDENT GROUP
- QCER WEATHER SIMULATION: RAIN HANDOUT (PAGE A7-4): 1 PER STUDENT OR STUDENT GROUP
- HOUSEHOLD AND OUTDOOR MATERIALS
- WEATHER SIMULATION: WIND HANDOUT (PAGE A7-5): 1 PER STUDENT OR STUDENT GROUP
- QCER WEATHER SIMULATION: WIND HANDOUT (PAGE A7-6): 1 PER STUDENT OR STUDENT GROUP

**READING STRATEGY:**

- Put students into groups of 4. Each student will be responsible for reading and fact finding a section of the reading (Water and Fire, Fire Protection, A Closer Look at Drover's House, Were There Other Earth Lodges in the Panhandle).
- Give each student a sticky note to write down any facts or information they feel will be important for the group.
- After students are done reading, they will each have 1 minute to share the information on their sticky note from their section of reading during a table talk.

**ACTIVITY INSTRUCTIONS:**

1. Students choose a weather simulation (wind or rain) to conduct on their miniature version of Hank's House.
2. Students record the process used through notes and pictures.
3. Students use findings to answer the question: Why do you think Hank's House was an earth lodge?

# Weather Simulation



## SECURITY BRIEFING –

### WORDS OF WISDOM FROM HANK THE COWDOG:

*It's me again, Hank the Cowdog. Weather makes a big difference on how we live life in this neck of the woods. A spark can destroy a ranch and everything on it. In the past people did not have the technology we have today and so their homes had to withstand the weather where they were built. Do some experimenting to see why Hank's house was an earth lodge instead of a stone building. Let's see if your house can stand up to some wind and rain...*

### ACTIVITY INSTRUCTIONS:

1. Choose a weather simulation (wind or rain) to conduct on your miniature version of Hank's House.
2. Record your process through notes and pictures.
3. Use your findings to answer the question: Why do you think Hank's House was an earth lodge?

### ACTIVITY MATERIALS:

- WEATHER SIMULATION: RAIN HANDOUT
- WEATHER SIMULATION: WIND HANDOUT
- HOUSEHOLD AND OUTDOOR MATERIAL



### INSTRUCTIONS:

INSTRUCTIONS	OBSERVATIONS
<p>Step 1: Record your observations of the house, before the rain simulation,</p> <p>Step 2: You will need a spray bottle to simulate light rain.</p> <p>Step 3: Spray the water 1 foot above Hank's House of the water falls evenly on the house. Spray the water for 1 minute.</p> <p>Step 4: Record your observations of the house, after rain simulation.</p> <p>Step 5: Let the house dry completely before moving on to the next phase of the simulation.</p> <p>Step 6: Repair any damage done to Hank's House before moving on to the next wind simulation.</p>	<p>Before Wind Simulation:</p>    <p>After Wind Simulation:</p>
<p>Step 1: Record your observation of the house, before the rain simulation.</p> <p>Step 2: You will need a spaghetti strainer and a bowl of water.</p> <p>Step 3: While standing, slowly pour the water through the strainer and onto the house.</p> <p>Step 4: Record your observation of the house, after the rain simulation.</p> <p>Step 5: Let the house dry completely before moving on to the next phase of the simulation.</p> <p>Step 6: Repair any damage done to Hank's House before moving on to the next wind simulation.</p>	<p>Before Wind Simulation:</p>    <p>After Wind Simulation:</p>
<p>Step 1: Record your observations of the house, before the rain simulations.</p> <p>Step 2: You will need a bowl of water.</p> <p>Step 3: While standing, slowly pour the onto the house.</p> <p>Step 4: Record your observations of the house, after the rain simulation.</p>	<p>Before Wind Simulation:</p>   <p>After Wind Simulation:</p>

# Weather Simulation: Rain



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## QUESTION:

Why do you think Hank's House was an earth lodge?

## Question-Claim-Evidence-Reasoning

Question: What are you being asked?



\_\_\_\_\_  
\_\_\_\_\_

Claim: State a direct response to the question/prompt.



\_\_\_\_\_  
\_\_\_\_\_

Evidence: Provide information that supports your claim.



Reasoning: Explain why the evidence supports the claim by providing connections.



Evidence #1

Reasoning #1

Conclusion: Restate your claim, summarize your evidence, and explain your reasoning.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Weather Simulation: Wind



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS:

Follow the steps to conduct a rain weather simulation on your miniature version of Hank's House.

INSTRUCTIONS	OBSERVATIONS
<p>Step 1: Record your observations of the house, before the wind simulation.</p> <p>Step 2: You will need a fan with three speed settings.</p> <p>Step 3: Point the fan at Hank's House and turn it on the lowest setting. Let the fan blow on the house for 1 minute.</p> <p>Step 4: Record you observations of the house, after the wind simulation.</p> <p>Step 5: Repair any damage done to Hank's House before moving on to the next wind simulation.</p>	<p>Before Wind Simulation:</p>         <p>After Wind Simulation:</p>
<p>Step 1: Record your observations of the house, before the wind simulation.</p> <p>Step 2: Point the fan at Hank's House and turn it on the medium setting. Let the fan blow on the house for 1 minute.</p> <p>Step 3: Record you observations of the house, after the wind simulation.</p> <p>Step 4: Repair any damage done to Hank's House before moving on to the next wind simulation.</p>	<p>Before Wind Simulation:</p>         <p>After Wind Simulation:</p>
<p>Step 1: Record your observations of the house, before the wind simulation.</p> <p>Step 2: Point the fan at Hank's House and turn it on the highest setting. Let the fan blow on the house for 1 minute.</p> <p>Step 3: Record you observations of the house, after the wind simulation.</p>	<p>Before Wind Simulation:</p>         <p>After Wind Simulation:</p>

# Weather Simulation: Wind



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## QUESTION:

Why do you think Hank's House was an earth lodge?

## Question-Claim-Evidence-Reasoning

Question: What are you being asked?



\_\_\_\_\_  
\_\_\_\_\_

Claim: State a direct response to the question/prompt.



\_\_\_\_\_  
\_\_\_\_\_

Evidence: Provide information that supports your claim.



Reasoning: Explain why the evidence supports the claim by providing connections.



Evidence #1

Reasoning #1

Conclusion: Restate your claim, summarize your evidence, and explain your reasoning.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





## ACTIVITY 8

### *Questions*



**PORCH TALK:**  
**A CONVERSATION ABOUT ARCHAEOLOGY IN THE TEXAS PANHANDLE**

**Topic**  
Historical Questioning

**Objective**  
Students will analyze questions from professionals and then create their own historical questions.

**Texas Essential Knowledge and Skills (TEKS):**  
7.20A, 7.20B, 7.22C





## Questions

**CONTENT AREA:** Social Studies

**MATERIALS:**

- QUESTION RANKING HANDOUT (PAGE A8-3): 1 PER STUDENT OR STUDENT GROUP
- QUESTION CREATION HANDOUT (PAGE A8-4): 1 PER STUDENT OR STUDENT GROUP

**READING STRATEGY:**

- Students read the section of the book Unanswered Questions.
- Students rank the list of 8 questions from John Erickson, from importance to their curiosity, a ranking of 1 being the question they would MOST want the answer to and 8 being the question they would LEAST want the answer to. Students will then use the sentence stems provided to create their own questions.

# Questions



## **SECURITY BRIEFING –**

### **WORDS OF WISDOM FROM HANK THE COWDOG:**

*It's me again, Hank the Cowdog. I think the most important question we should ask the West Pasture people was what they fed their dogs. I mean, I know that is my top priority at the end of a long day doing the hardest job on the ranch. What questions would you ask the West Pasture people?*

### **ACTIVITY INSTRUCTIONS:**

*Use the question stems provided to make a list of 5 questions you would want to ask the West Pasture people.*

### **MATERIALS:**

- QUESTION RANKING HANDOUT
- QUESTION CREATION HANDOUT

# Questions



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS

Rank the list of 8 questions from John Erickson, from importance to your curiosity, a ranking of 1 being the question you would MOST want the answer to and 8 being the question you would LEAST want the answer to. Complete the sentence stems below to justify your answers.

\_\_\_\_\_ *How did they cut down those big cedar trees that served as central roof support posts in their houses?*

\_\_\_\_\_ *What kind of chopping tool did they use? We haven't found any tools that would chop down a big tree.*

\_\_\_\_\_ *How did they lug those logs a mile from the canyons to the house site? I have cut down some of those big trees with a chainsaw and they must weigh between 1000 and 2000 pounds.*

\_\_\_\_\_ *Did they have a system for keeping track of time? Did they have a calendar?*

\_\_\_\_\_ *How much did they know about the movement of sun, moon, and stars?*

\_\_\_\_\_ *Did they eat grasshoppers? I'll bet they did. Grasshoppers would have been a ready source of protein and the kids could have done the hunting.*

\_\_\_\_\_ *Where did they find clay for making pots?*

\_\_\_\_\_ *How long did it take them to learn how to make a perfect Washita point?*

*I ranked* \_\_\_\_\_  
*as the MOST important because* \_\_\_\_\_

\_\_\_\_\_

*I ranked* \_\_\_\_\_  
*as the LEAST important because* \_\_\_\_\_

\_\_\_\_\_



# Questions Creation Handout



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## INSTRUCTIONS

Using the sentence stems below, create a list of questions that you would ask the West Pasture people.

1. What did?	2. Where/ When is?	3. Which is?	4. Who is?	5. Why did?	6. How did?
7. What can?	8. Where/ When can?	9. Which did?	10. Who did?	11. Why can?	12. How can?
13. What would?	14. Where/ When will?	15. Which would?	16. Who will?	17. Why would?	18. How will?

Questions I would ask the West Pasture people...

- 1.
- 2.
- 3.
- 4.
- 5.