



# INDIGENOUS WISDOM: CENTURIES OF PUEBLO IMPACT IN NEW MEXICO

A Pueblo-Based Educational Curriculum • [IndianPuebloEducation.org](http://IndianPuebloEducation.org)

## Unit Plan

**Section A:** Introductory Materials

**Name:** Aaron Sarracino

**Title of Unit:** Pueblo Connections to the Land

**Content Area:** Science: Agriculture

**Grade Levels:** Middle School: 6–8

### Rationale:

Pueblo people have been tied to the land in New Mexico for countless generations. Understanding the physical features of the natural landscape, combined with accumulated knowledge of the wildlife, weather patterns and water sources were key to survival in the challenging environment. Contemporary knowledge of plants and animals in a given region can be compared to traditional knowledge and discussed to see how ancient and contemporary Pueblo people have survived in their traditional lands. Understanding that while the different Pueblo Pueblos have many similarities in culture and custom, there were also different practices and variations to many aspects of life that were rooted in the different types of landscape they live in. Understanding location's effects on agriculture and how this affects Pueblo survival and innovation are a crucial foundation of understanding Pueblo culture and practices along with the potential for the future of humanity at large.

In this unit, the Pueblo Core Values of Love, Respect, and Balance are highlighted in four lessons. Love is evident in the ways that Pueblo people care for the land; Respect for the earth and its seasons, climate, and natural resources that dictate planting and suitable living conditions; and Balance can be seen in the ways Pueblo people cultivate the lands, rotate crops, and pay attention to the availability of natural resources in order to thrive in their chosen locations.

### Unit Goals:

1. Learners will be able to locate Indigenous Pueblo communities and surrounding natural landmarks on a map.
2. Learners will articulate understanding that while Pueblos are similar in culture and custom, they are distinct and unique with a particular emphasis placed on location.
3. Learners will be able to describe USDA Plant Hardiness Zones.
4. Learners will be able to identify key planting times and evaluate conditions for three sisters plants in different planting zones.
5. Learners will be able to compare and predict feasibility of simulated planting dates with contemporary USDA plant hardiness zones.

**Standards** (Common Core Standards and/or NextGen Standards for science)

CCSS.6–12: Speaking and Listening-Comprehension and Collaboration.1

CCSS.6–12: Speaking and Listening-Comprehension and Collaboration.2

This unit does not explicitly cover these, but can lay a foundation of familiarity for beginning to study

[NGSS. MS.ESS.2-2: Earth's Systems](#)

[NGSS>MS.ESS.3-5: Earth and Human Activity](#)



# INDIGENOUS WISDOM: CENTURIES OF PUEBLO IMPACT IN NEW MEXICO

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## Section B: Lesson Plan 1

**Title:** Introduction of Three Pueblos

**Duration:** 25-35min

**Grade Level:** 6-8

### Learning Objectives:

1. Learners will identify three New Mexico Pueblos and the surrounding environment.
2. Learners will visualize and demonstrate understanding of how three Pueblos describe their land.
3. Learners will evaluate the significance of locations for three Pueblos in different parts of the state of New Mexico.

### Prerequisite Skills and Knowledge:

1. Students will understand the basic layout of the state of New Mexico
2. Students will know what an adjective is
3. Students will know basic land and environmental formations

### Materials and Resources:

1. [Pueblo Connections to the Land Slides](#) PowerPoint (Slides 1-11)
2. Computer for teacher with presentation ability
3. Handout #1: Pueblo Descriptions
4. Handout #2: Worksheet
5. Pencils or writing device

### Guiding Questions:

1. Where are the three different Pueblos presented located? Why might this be significant?
2. What is the environment and natural setting like surrounding these Pueblos? Why might this be significant?
3. How can this knowledge be connected to looking at all 19 Pueblos and the environment surrounding them?
4. How might the land be used to consider agricultural and hunting practices of early and contemporary Pueblo people?

**Core Values:** Love, Respect

**Procedure:**

1. Introduction: [~5min]
  - a) Display slide #3 (the images of three different Pueblo villages) to begin the class. Have the learners take 10 seconds to look at the pictures. (<1min)
  - b) Ask learners to turn and talk to their neighbor and describe what they see in the pictures. (2min)
  - c) Call on a few learners to share what was discussed. (2min)
  - d) Switch to slide #4 (same Pueblo village images with labels). Direct learners' attention to the new information. Read the place names out loud or ask for volunteers to read it (<1min)
  - e) Explain that the slides show three Pueblos in the state of New Mexico and that there are currently 19 Pueblos in the state. For this lesson, these three will be studied and discussed. (<1min)
  
2. Distribute Handout #1: Pueblo Descriptions [~6min]
  - a) Have learners quickly scan handout #1-Pueblo Descriptions and underline any words that they do not understand. Explain that there are some words in the Pueblo's traditional language that may be hard to pronounce. (<1min)
  - b) Ask class how they would like to proceed. You can either read the sections out loud together, individually or in pairs or small groups. Utilize slides #5-7 (Pueblo Descriptions) if needed. (5min)
  
3. After reading, Distribute Handout #2: Worksheet (13min)
  - a) Show slide #8 (Discussion Prompt - Ask: What do you notice...) and explain what learners will need to do next: complete numbers questions 1, 2 and 3 on the worksheet.
  - b) Tell them to wait to do #4 until discussion and wrap-up later. Circulate around the room to answer questions and help learners stay focused. Reteach what an adjective is if necessary and/or names of land formations. (10min)
  - c) Have a few groups share out their answers. Write these on a board, large notepad or emphasize on slides #5, 6 and 7 (Pueblo Descriptions). (3min)
  
4. Discussion and Wrap-up [~4min]
  - a) Ask learners why they think they did this activity. Answers may vary, but bring attention in the end to the idea that knowing the locations of these Pueblos is going to be important in the next lessons. (2min)
  - b) Show slide #9-11 (Where are these Pueblos located?) and have learners fill in the information on #4 on Worksheet 2. (2min)

**Modifications:**

1. Make all IEP modifications
2. Pre-teach vocabulary where necessary
3. Allow extended time where appropriate
4. Restate, paraphrase, and emphasize important information
5. Read text aloud or allow for partner reading
6. Allow for mixed ability grouping
7. Allow students to work ahead or independent where appropriate

**Notes to Teacher:**

1. This lesson plan follows the “Pueblo Connections to the Land Slides” PowerPoint. The slides should be projected or displayed prominently for guidance in lesson sequencing and discussion.
2. Based on the class profile, feel free to make the modifications to the procedure where necessary.
3. Please be aware that certain objects, animals, or traditional ceremonies, may be sensitive for some children to speak about. This depends on each Pueblo’s traditional teachings. You can make the statement that assures students that if there is anything presented that is uncomfortable for them to please let you know. This is a sensitive area and students should be excused from writing or speaking of sensitive areas.

## Handout #1: Pueblo Descriptions



### Taos Pueblo

High above our Taos Pueblo, in the pristine aspen and evergreen forests of the Taos Pueblo Blue Lake Wilderness Area, is a sacred lake, Ba whyea-Blue Lake. The People of Taos Pueblo have occupied these areas since time immemorial. Since the arrival of settlers, we have struggled to hold onto our land base, which has been drastically reduced throughout the years. On December 15, 1970, the Congress of the United States legally enacted Public Law 91-550, the Taos Pueblo Wilderness Act which put the Blue Lake Wilderness

area into trust status. This law provided the Pueblo with exclusive use of the area for traditional purposes.

**Image Source:** Creative Commons License

**Text Source:** <https://www.taospueblo.org/cms/natural-resources>

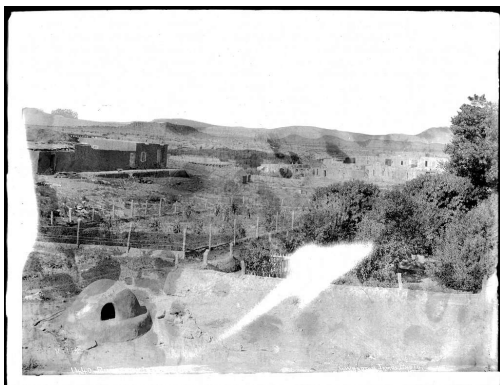


### Laguna Pueblo

Laguna is surrounded by enchanting mesas and is situated at the foothills of the beautiful mountains of Mount Taylor. Laguna is located 45 miles west of Albuquerque on Interstate 40. The reservation consists of approximately 500,000 acres of land situated in Cibola, Valencia, Bernalillo and Sandoval counties. The residents of Laguna Pueblo live in six villages which are Laguna, Mesita, Paguete, Seama, Paraje, and Encinal. The Tribal administration building is located in the village of Laguna. You can experience the uniqueness of our Pueblo by visiting in person.

**Source:** Creative Commons License

**Source:** <https://www.lagunapueblo-nsn.gov>



### Isleta Pueblo

The Pueblo of Isleta is nestled in the scenic Rio Grande Valley, 15 miles south of Albuquerque on Interstate 25 Exit 215. It is one of the larger 19 Pueblos within New Mexico and was established in the 1300s. Isleta Pueblo covers an area of more than 329 square miles, surrounded by the Manzano Mountains to the east and to the desert mesa lands of the Rio Puerco on the west. The name Isleta comes from the Spanish language which means "Little Island." Visit Isleta Pueblo to learn more about the history and culture.

**Image Source:** Creative Commons License

**Source:** <https://www.isletapueblo.com/about-us/>

**Handout #2: Worksheet**

1. After reading the Taos Pueblo description. Answer the following question below: *What kind of land formations and water sources are described? What kind of adjectives are used?*

2. After reading the Laguna Pueblo description. Answer the following question below: *What kind of land formations and water sources are described? What kind of adjectives are used?*

3. After reading the Isleta Pueblo description. Answer the following question below: *What kind of land formations and water sources are described? What kind of adjectives are used?*

4. Fill in where the three Pueblos located in New Mexico:

<b>Taos:</b>	<b>Laguna:</b>	<b>Isleta:</b>

## Section B: Lesson Plan 2

**Title:** Mapping New Mexico Pueblos and the Surrounding Area.

**Duration:** 55min

**Grade Level:** 6-8

### Learning Objectives:

1. Learners will demonstrate understanding of natural formations in the state of New Mexico.
2. Learners will identify locations of the 19 Pueblos on a map.
3. Learners will consider and evaluate the reasons for Pueblo people settling in particular locations based on the natural environment.

### Prerequisite Skills and Knowledge:

1. Learners will understand how to use a basic grid system.
2. Learners will understand how to read a map.
3. Learners will be able to identify different Pueblos of New Mexico on a map.
4. Learners will be able to identify and discuss the natural formations and waterways as they relate to Pueblo settlement.

### Materials and Resources:

1. [Pueblo Connections to the Land Slides](#) PowerPoint (Slides 12-19)
2. Handout #3: Map of New Mexico Outline
3. Handout #4: Map of New Mexico Scrambled
4. Blank sheet of copier paper
5. Scissors
6. Glue
7. Colored Pencils or fine tipped markers

### Guiding Questions:

1. Where are important waterways in New Mexico located? Why do you think we are looking for these?
2. Where are important natural landmarks in New Mexico located? Why do you think we are looking for these?
3. Where are the 19 Pueblo communities in New Mexico located? Why do you think we are going to locate these?

**Core Values:** Respect, Balance

**Procedure:**

1. Introduction: [<5min]
  - a) Display slide #13 (Blank landform map of New Mexico) to begin the class. Ask the learners to take 10 seconds to wonder about the image. (<1min)
  - b) Ask learners to turn and talk to their neighbor and describe what they observe about the map. (<1min)
  - c) Call on a few learners to share what was discussed. (1min)
  - d) Switch to slide #14 (Directions on a Map). Direct learners' attention to the new information. Quickly review how to use the compass on a map to determine directions. (1min)
  
2. Map Assembly: Distribute Handout #3: Blank Map of New Mexico and Handout #4: Scrambled Pieces of New Mexico Map [20min]
  - a) Explain that learners will now cut out the 16 pieces of Handout #4 (Scrambled Pieces of New Mexico Map) and correctly assemble them. Groups can check in with the teacher often to confirm progress. (15min)
    - a. Notes:
      - i. Reinforce that learners take their time to make straight cuts so their map comes out accurately. Rushed or crooked cuts will make the map difficult to read.
      - ii. The letters on the map pieces are to help orient the pieces in the correct way. The letters should be all in the same direction we typically write in, bottom of letter down, top of letter up. Pieces that look similar are I and H and D and O.
  - b) When they have correctly assembled all the pieces, they should get approval from the teacher and then glue the pieces together on Handout #3 (Blank Map of New Mexico) or another sheet of paper if the sizes do not match (5min)
  - c) At this point, teacher can also display slide #15 (Correct Map Assembly) to show what a correct map should look like or they can use the teacher's guide to assist groups to quickly assemble their pieces in the correct order (Slide #16: Correct Placement of Pieces).
  
3. Map Analysis: Distribute Handout #5: Student Worksheet [25min]
  - a) Instruct students to use their assembled map to complete the questions on Handout #5: Student Worksheet individually or in pairs.
  
4. Class discussion [10min]
  - a) Display Slide #17 (Discussion Question 1) - Pair and Share #1: Ask learners what they notice about where the Pueblos are located. Are there any clear patterns, similarities, or differences between the locations of the different Pueblos?
  - b) Display Slide #18 (Discussion Question 2) - Pair and Share #2: Why do you think Pueblos did not settle in other places around the state such as in the South or far East part of New Mexico?
  - c) Full Group: Ask for volunteers to present their pair and share answers as a full group. Guide full group discussion of responses.

- d) Display Slide #19 (Summary) - Reinforce learning objectives and set the stage for the next lesson.

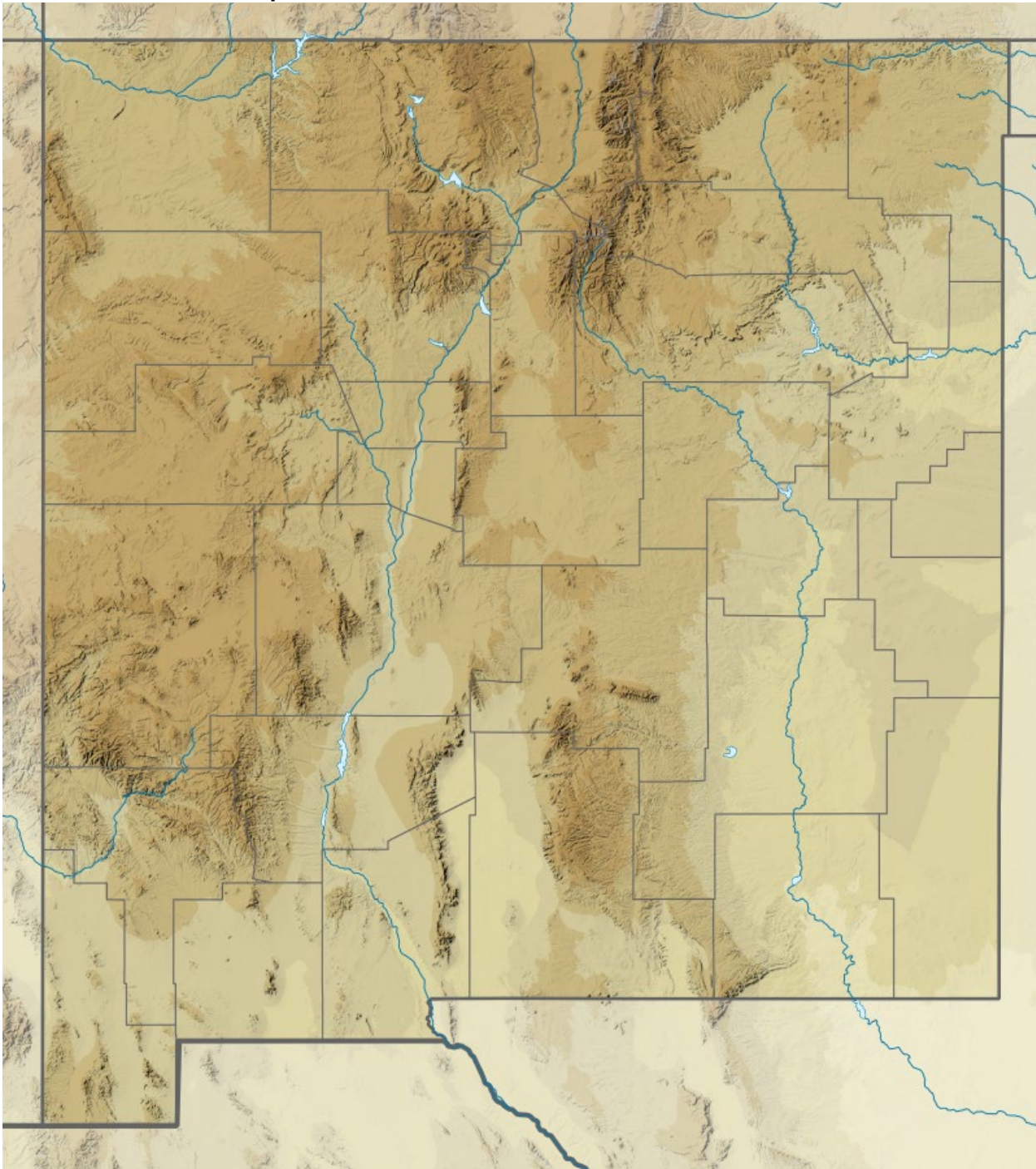
**Modifications:**

1. Make all IEP modifications
2. Pre-teach vocabulary where necessary
3. Allow extended time where appropriate
4. Restate, paraphrase, and emphasize important information
5. Read text aloud or allow for partner reading
6. Allow for mixed ability grouping
7. Allow students to work ahead or independent where appropriate

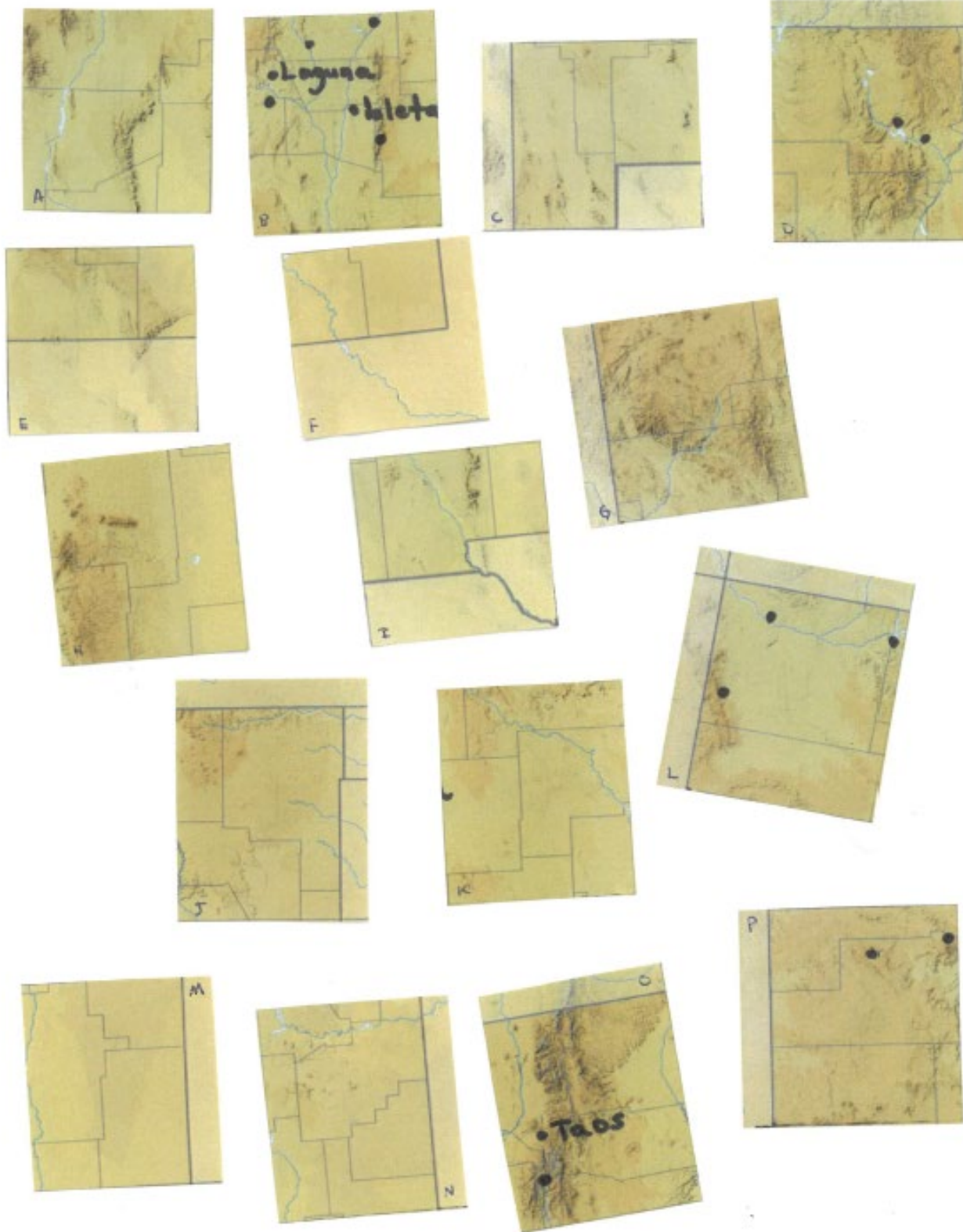
**Notes to Teacher:**

1. This lesson plan follows the “Pueblo Connections to the Land Slides” PowerPoint. The slides should be projected or displayed prominently for guidance in lesson sequencing and discussion.
2. If preferred, teacher can walk students through Handout #5: Student Worksheet on a large screen using Google earth/Google maps.
3. Please be aware that certain objects, animals, or traditional ceremonies, may be sensitive for some children to speak about. This depends on each Pueblo’s traditional teachings. You can make the statement that assures students that if there is anything presented that is uncomfortable for them to please let you know. This is a sensitive area and students should be excused from writing or speaking of sensitive areas.

**Handout #3: Blank Map of New Mexico**



Handout #4: Scrambled Pieces of New Mexico Map



**Handout #5: Student Worksheet**

1. Label water sources (There are 7 black dots on the map to indicate the location of them)

- a. Use <https://gisgeography.com/new-mexico-lakes-rivers-map/> or [Google Map/Google Earth](#) to help put the following waterways in the correct place on map #1. You can also use the grid as a guide to help with placing them in the proper locations.

Rio Grande	Rio Chama
Abiquiu Reservoir	San Juan River
Rio Puerco	Navajo Reservoir
Rio San Jose	

2. Label mountains (There are 5 black dots on the map to indicate the location of them)

- a. Use [Google Map/Google Earth](#) to help put the following natural formations in the correct place on map #1. You can also use the grid as a guide to help with placing them in the proper locations.

Sandia Mountains	Sangre De Cristo Mountains
Mount Taylor	Chuska Mountains
Zuni Mountains	

3. Star the remaining 16 Pueblos

- a. Use [Google Map/Google Earth](#) to help assist mapping out the remaining 16 Pueblos of New Mexico onto your map. **Put a star on the approximate place, you do not need to write the Pueblo names or the map will get too cluttered.**

Acoma Pueblo	Cochiti Pueblo	Name Pueblo
Jemez Pueblo	Picuris Pueblo	Pojoaque Pueblo
Ohkay Owingeh Pueblo	San Felipe Pueblo	San Ildefonso Pueblo
Sandia Pueblo	Santa Clara Pueblo	Santo Domingo Pueblo
Santa Ana Pueblo	Tesuque Pueblo	Zia Pueblo
Zuni Pueblo		

## Section B:

### Lesson Plan 3

**Title:** Identifying USDA Hardiness Zones

**Duration:** 25min

**Grade Level:** 6-8

#### Learning Objectives:

1. Learners will be able to describe USDA Plant Hardiness Zones
2. Learners will be able to identify USDA Plant Hardiness Zones in New Mexico
3. Learners will be able to analyze USDA Plant Hardiness Zone Maps to identify and consider patterns in New Mexico

#### Prerequisite Skills and Knowledge:

1. Learners should have knowledge of how to use/read a map.
2. Learners should be shown how to use the USDA Hardiness map website.
3. Learners will understand how to find relevant information online.

#### Materials and Resources:

1. Computer with internet access
2. Completed map from previous activity or a copy of one
3. Handout #6: Worksheet
4. [Pueblo Connections to the Land Slides](#) PowerPoint (Slides 20-29)

#### Guiding Questions:

1. What are USDA Plant Hardiness Zones?
2. How can you determine what particular zone an area has?
3. Why is it important to consider what zone a particular area is in?
4. How do you think natural formations impact the planting zone in a certain area?

**Core Values:** Respect, Balance

#### Procedure:

1. Introduction: [<1min]
  - a) Display slide #21 (USDA Plant Hardiness Zones Map) to begin the class. Have the learners take 10 seconds to look at the picture and wonder aloud what they notice. (<1min)
2. Distribute Handout #6: Worksheet [~15min]
  - a) Teachers can decide to have learners work in pairs, or to use slides 21-29 to walk learners through each question as a class.
  - b) Instruct learners to complete Handout #6: Worksheet in pairs, beginning with Part 1: What are USDA Plant Hardiness Zones? (15min). Note: there should be partner discussion occurring throughout the completion of the worksheet.
  - c) Check for understanding after approximately 15 minutes.

- d) Instruct learners to proceed to Part 2: USDA Hardiness Zones in New Mexico.  
Note: if there is no internet access, teacher will need to prepare to assist with completion of questions 5-7 on Handout #6: Worksheet using slides 27, 28, and 29 (corresponding slides to questions).

3. Discussion (10min)

- a) Review answers with the full group. Ask learners to share out their answers.
- b) Reference the guiding questions from Lesson Plan 2 to discuss the significance of hardiness zones to Pueblo settlements:
  - i. Where are important waterways in New Mexico located?
  - ii. Where are important natural landmarks in New Mexico located?
  - iii. Where are the 19 Pueblo communities in New Mexico located?
- c) If the group has not gotten to this conclusion, make sure to reiterate that not only the climate, but the land can have an influence on what zone a certain location has. Mountains, plateaus, flat terrain, etc.

**Modifications:**

1. Make all IEP modifications
2. Pre-teach vocabulary where necessary
3. Allow extended time where appropriate
4. Restate, paraphrase, and emphasize important information
5. Read text aloud or allow for partner reading
6. Allow for mixed ability grouping
7. Allow students to work ahead or independent where appropriate

**Notes to Teacher:**

1. This lesson plan follows the “Pueblo Connections to the Land Slides” PowerPoint. The slides should be projected or displayed prominently for guidance in lesson sequencing and discussion.
2. Please be aware that certain objects, animals, or traditional ceremonies, may be sensitive for some children to speak about. This depends on each Pueblo’s traditional teachings. You can make the statement that assures students that if there is anything presented that is uncomfortable for them to please let you know. This is a sensitive area and students should be excused from writing or speaking of sensitive areas.

**Handout #6: Worksheet**

**Part 1: What are USDA Plant Hardiness Zones?**

1. What do gardeners and growers use plant hardiness zone maps for? Talk with a partner and then answer below:

2. What data is the map based on? Talk with a partner and then answer below:

3. Look at the Legend on the right side of the map. How many different zones are there? (These are represented by the different colored boxes.) Talk with a partner and then answer below:

4. Looking at the map of the United States, what do you notice about the zones? Talk with a partner and then answer below:

**Part 2: USDA Hardiness Zones in New Mexico**

Use <https://pdi.scinet.usda.gov/phzm/vm/NM300.jpg> to help answer the following questions.

5. How many hardiness zones are in New Mexico? Talk with a partner and then answer below:

6. What patterns do you notice about the zones in New Mexico? Talk with a partner and then answer below:

7. What is the zone of where you live? Is there more than one zone? Why do you think there are more than one zone where you live? Talk with a partner and then answer below:

## Section B: Lesson Plan 4

**Title:** Connecting Pueblo Location with Planting Zones

**Duration:** 55min

**Grade Level:** 6-8

### Learning Objectives:

1. Learners will recall and apply knowledge of USDA Planting Zones and what they represent.
2. Learners will recall and apply knowledge of the different USDA planting zones within New Mexico.
3. Learners will analyze connections between locations of Pueblo communities and planting zones.

### Prerequisite Skills and Knowledge:

1. Learners should be familiar with a state of New Mexico map
2. Learners should be familiar with the locations of the 19 Pueblos in New Mexico
3. Learners should be familiar with USDA Plant Hardiness Zones

### Materials and Resources:

1. [Pueblo Connections to the Land Slides](#) PowerPoint (Slides 30-31)
2. Completed mosaic map from previous activity
3. Handout #7: Student Worksheet
4. At least 20 pieces of blank paper for poster walk
5. Markers

### Guiding Questions:

1. What are USDA Plant Hardiness Zones?
2. What successful agricultural adaptations have Pueblo farmers used?
3. How might USDA plant hardiness zones and Pueblo farming practices be connected?

**Core Values:** Respect, Balance

### Procedure:

1. Introduction: [<1min]
  - b) Display slide #31 (Final Resource) to begin the class. Have the learners take 10 seconds to look at the chart. (<1min)
  - c) Ask learners how they think this activity will bring it all together. You do not have to clarify right or wrong, this is simply to get them thinking. (<1min)
2. Distribute Handout #7: Student Worksheet, blank paper and markers [~20min]
  - a) Split class into small groups of 3-4.
  - b) Assign each group 2-4 Pueblos to focus on, based on class size.
  - c) Each group should create a mini poster for each assigned Pueblo that includes
    - a. Pueblo Nation's name

- b. Pueblo's USDA main planting Zone
  - c. Any planting zones that are nearby. (Show students how to use the mileage legend on the map to determine if a zone is within 10 miles).
  - d. Any natural formations or water sources that are nearby.
- d) Learners should use the USDA website to search for the zones:  
<https://planthardiness.ars.usda.gov>
- e) Learners can use online resources ([Google Map](#)/[Google Earth](#)) or any previous work to help get the information they need to use.
- f) Allow flexible time for groups to complete the tasks while teacher monitors progress around the room and helps address any questions that arise. Note: teacher may want to display USDA maps from previous lesson (slide 26) for information.
3. Mini Poster Walk (15min)
- a) Once all mini-posters are complete, instruct groups to create a display around their work areas and/or the classroom with the mini-posters prominently displayed.
  - b) Ask individuals to mull about the classroom to collect data from each mini-poster and enter the information on their own Handout #7: Student Worksheet. Help learners complete any missing information from mini-poster gallery. (15min)
4. Discussion (10min)
- a) When the gallery walk is complete, after about 15 minutes, instruct learners to return to their seats and consider the results they collected from all mini-posters.
  - b) Prompt questions such as: What trends did you notice? What stood out the most? What was most surprising? What could you have predicted based on your knowledge of the USDA Hardiness Zones?
  - c) Review answers with the full group. Have learners share out their answers.

**Modifications:**

1. Make all IEP modifications
2. Pre-teach vocabulary where necessary
3. Allow extended time where appropriate
4. Restate, paraphrase and emphasize important information
5. Read text aloud or allow for partner reading
6. Allow for mixed ability grouping
7. Allow students to work ahead or independent where appropriate

**Notes to Teacher:**

1. This lesson plan follows the "Pueblo Connections to the Land Slides" PowerPoint. The slides should be projected or displayed prominently for guidance in lesson sequencing and discussion.
2. Please be aware that certain objects, animals, or traditional ceremonies, may be sensitive for some

children to speak about. This depends on each Pueblo's traditional teachings. You can make the statement that assures students that if there is anything presented that is uncomfortable for them to please let you know. This is a sensitive area and students should be excused from writing or speaking of sensitive areas.

3. While USDA planting zones are based on scientific research and Pueblo planting practices/timelines are well documented, this activity is not meant to be absolute, but a simplification of something that has deeper significance. The primary focus is to expose learners to the overall idea of location having an influence on general planting times.
4. Actual agricultural methods practiced by different Pueblos could vary based on genetic variation of seeds such as drought tolerance, pest tolerance, climate tolerance, regional adaptation or any combination of these mentioned. Extended research and activities may be pursued for a more specific and absolute approach.

**Handout #7: Student Worksheet**

- 1) Use [<https://planthardiness.ars.usda.gov>] and map resources to help find the information in the table for your groups assigned Pueblos.
- 2) Use your peers' mini posters to get remaining information needed.

Pueblo	Primary Planting Zone(s)	Nearby Planting Zone(s) (<10miles)	Nearby Natural Landmarks and Water Sources
Acoma			
Cochiti			
Isleta			
Jemez			
Laguna			
Nambe			
Ohkay Owingeh			
Picuris			
Pojoaque			
Sandia			
San Felipe			
San Ildefonso			
Santa Ana			
Santa Clara			
Santo Domingo			
Taos			
Tesuque			
Zia			
Zuni			

**Culminating Activities:**

NOTE: Use Slides 32-35 from Pueblo Connections to the Land Slides to introduce these next options.

**Resource: Planting guide for three sisters (dates from ufseeds.com)**

	Zone 4	Zone 5	Zone 6	Zone 7
<b>Beans</b>	Beginning of June	Middle of May	Beginning of May	Beginning of April
<b>Corn</b>	Beginning of June	Middle of May	Beginning of May	Beginning of April
<b>Squash</b>	Beginning of June	Middle of May	Beginning of May	Beginning of April

There can be multiple culminating activities that learners can choose from or one that a teacher prefers for their class. Teacher can also develop their own.

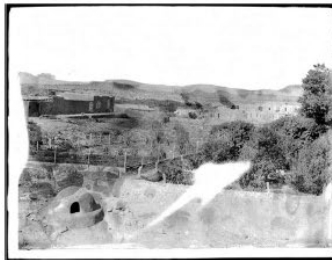
Activity	Description
1. Poster or Slides comparing Pueblos in three different zones.	Learners should pick three Pueblos that are in three different zones. They should create a poster or slides that indicates which Pueblo is being presented. The traditional name (if they can find it). The main planting zone as well as any zones that are nearby. Also, the poster should indicate when this Pueblo should plant the three sisters.
2. Planting Guide	Learners can create a booklet or pamphlet that shows when to plant the three sisters based on which Pueblo they are at. They can choose to do a comprehensive guide for all the Pueblos or just pick a few, whatever time allows. A map can also be used to show locations.
3. Comic, story or drawing	Students can create an artistic/writing product that displays/discusses some of the ideas covered in this unit. Recommended areas of focus should emphasize Pueblo locations, the maps that were studied, environment, planting zones and time of planting three sisters. A narrative should include a few of these previous topics.
4. Long-term planting project	Students or class can use the guide above to plant the different seeds at various times of the year. Class should note which Pueblos would be represented by planting at a certain time.

# Section B: Lesson Resources

*Pueblo Connections to the Land Slides*

# Lesson 1

Slides 2-11



3

## Three Pueblo villages in New Mexico



**Taos Pueblo** [Source:](#) Creative Commons License



**Laguna Pueblo** [Source:](#) Creative Commons License



**Isleta Pueblo** [Source:](#) Creative Commons License

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## Taos Pueblo Description

High above our Taos Pueblo, in the pristine aspen and evergreen forests of the Taos Pueblo Blue Lake Wilderness Area, is a sacred lake, Ba whyea-Blue Lake. The People of Taos Pueblo have occupied these areas since time immemorial. Since the arrival of settlers, we have struggled to hold onto our land base, which has been drastically reduced throughout the years. On December 15, 1970, the Congress of the United States legally enacted Public Law 91-550, the Taos Pueblo Wilderness Act which put the Blue Lake Wilderness area into trust status. This law provided the tribe with exclusive use of the area for traditional purposes.

Source: <https://www.taospueblo.org/cms/natural-resources>

## Laguna Pueblo Description

### Welcome to the Pueblo of Laguna

Laguna is surrounded by enchanting mesas and is situated at the foothills of the beautiful mountains of Mount Taylor. Laguna is located 45 miles west of Albuquerque on Interstate 40. The reservation consists of approximately 500,000 acres of land situated in Cibola, Valencia, Bernalillo and Sandoval counties. The residents of Laguna Pueblo live in six villages which are Laguna, Mesita, Pagate, Seama, Paraje, and Encinal. The Tribal administration building is located in the village of Laguna. You can experience the uniqueness of our Pueblo by visiting in person.

Source: <https://www.lagunapueblo-nsn.gov>

## Isleta Pueblo Description

### **Welcome to the Pueblo of Isleta**

The Pueblo of Isleta is nestled in the scenic Rio Grande Valley, 15 miles south of Albuquerque on Interstate 25 Exit 215. It is one of the larger 19 Pueblos within New Mexico and was established in the 1300s. Isleta Pueblo covers an area of more than 329 square miles, surrounded by the Manzano Mountains to the east and to the desert mesa lands of the Rio Puerco on the west. The name Isleta comes from the Spanish language which means “Little Island.” Visit Isleta Pueblo to learn more about the history and culture.

Source: <https://www.isletapueblo.com/about-us/>

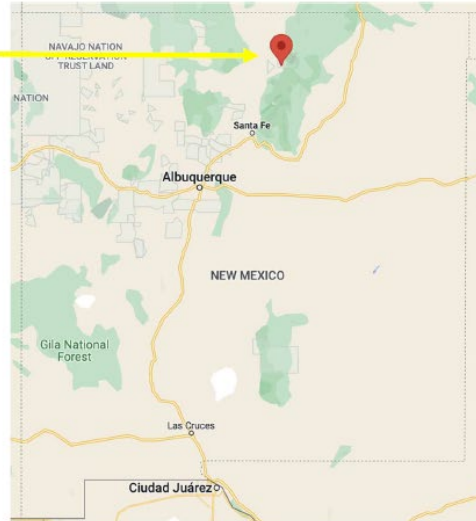
7

Ask: What do you notice about how each Pueblo Nation describes their lands?

- *What adjectives are used?*
- *What kinds of land formations and water sources are described?*
- *Think about the words in the descriptions and look back at the pictures. Do they match the image in your head? Do they match the description given by the Pueblos?*

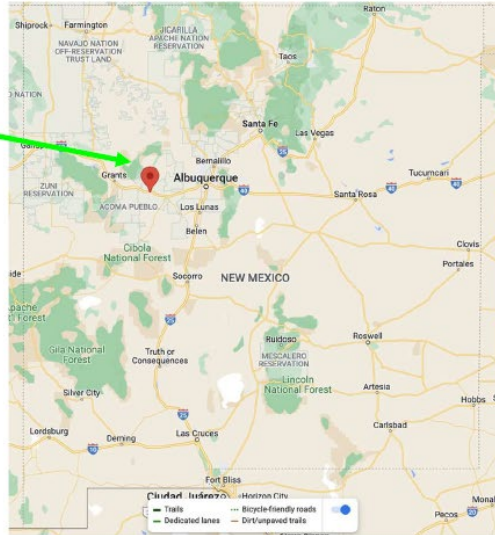
Where are these Pueblos located?

**Taos:** —————  
Northern New Mexico



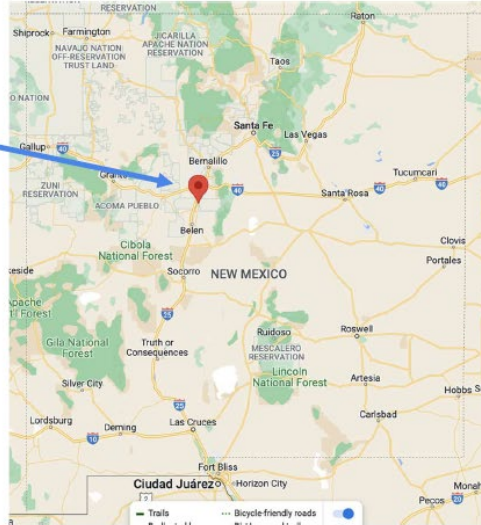
Where are these Pueblos located?

Laguna:  
Western New Mexico



Where are these Pueblos located?

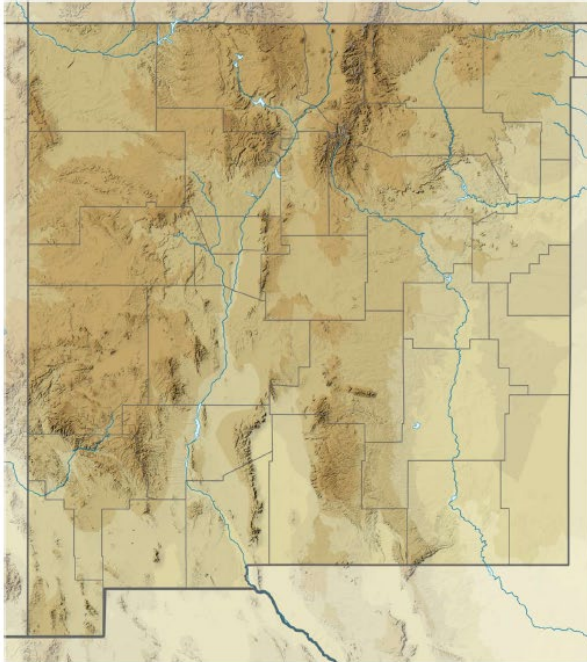
**Isleta:**  
Central New Mexico



# Lesson 2

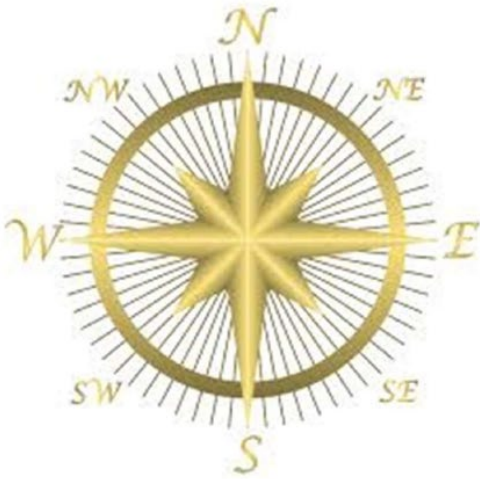
Slides 12-19

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Source:  
[https://commons.wikimedia.org/wiki/File:USA\\_Ne  
w\\_Mexico\\_relief\\_location\\_map.svg](https://commons.wikimedia.org/wiki/File:USA_Ne_w_Mexico_relief_location_map.svg) 13

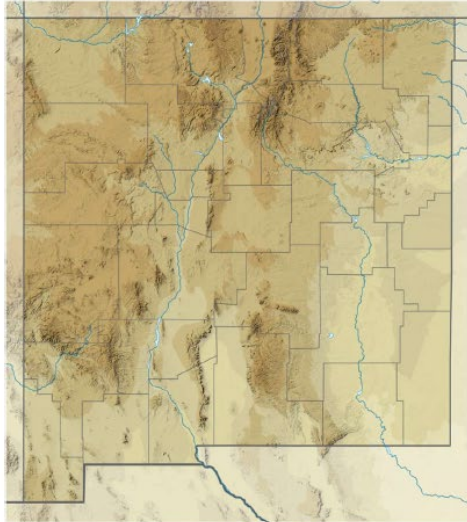
## Directions on a map



**North:** Up  
**South:** Down  
**East:** Right  
**West:** Left

Source: [https://openstax.org/r/n0\\_gstatic.com/images?c=fbn-ANd9GcRgl-UscC8m3W3OoNvrozPIHLxU3nccotCaZvQ&usqp=CAU](https://openstax.org/r/n0_gstatic.com/images?c=fbn-ANd9GcRgl-UscC8m3W3OoNvrozPIHLxU3nccotCaZvQ&usqp=CAU)

### Correct Map Assembly



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### Correct Placement of Pieces

L	D	O	J
P	B	K	N
G	A	H	M
C	I	E	F

Discussion Question 1

What do you notice about where the Pueblos are located. Are there any clear patterns, similarities or differences between the locations of the different Pueblos?

Discussion Question 2

Why do you think Pueblos did not settle in other places around the state such as in the South or far East part of New Mexico?

## Summary

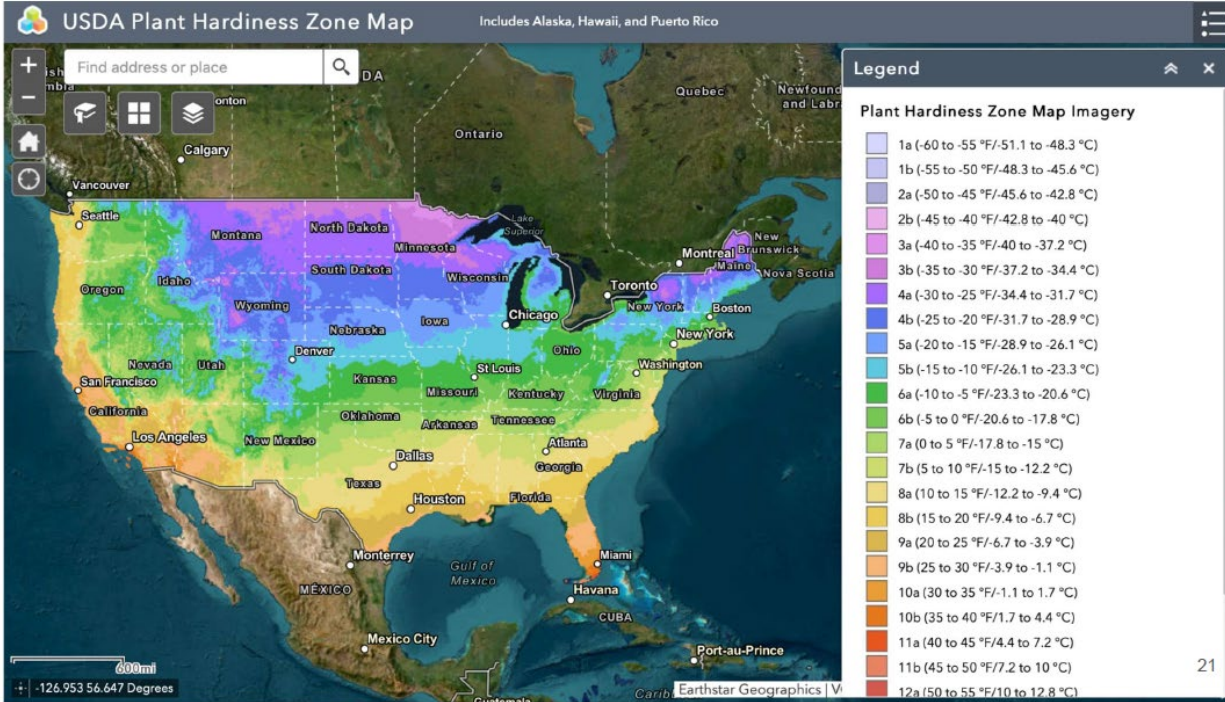
- The state of New Mexico has a lot of different types of natural formations.
- Pueblo communities live near certain types of water sources and natural formations.
- While the Pueblos are similar, the differences based on where they live led to small differences in lifestyle and methods of survival. Each of them do different things based on what is around them.

*The next lesson will look at a simplified example of how the land could have influenced different approaches to agriculture.*

# Lesson 3

Slides 20-29

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## 1) What are the zones used for?

Helps farmers know what types of plants will grow best at a certain location.

## 2) What data are they based on?

Average yearly minimum temperature, divided into 10 degree °F zones.

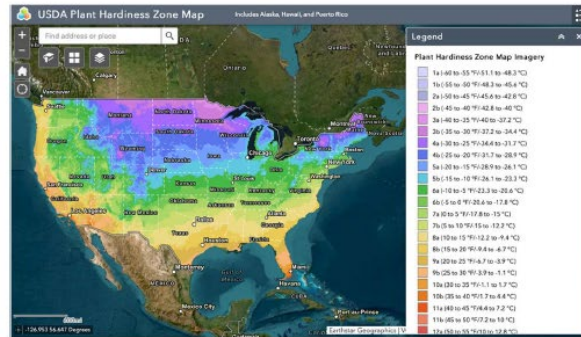
How cold it gets in a certain place is tracked each year. Then that is averaged over time and then the zones are created based on all the measurements.

### 3) How many zones are there?

There are 13 zones, split into two smaller zones. For example, Zone one is split into zone 1a and zone 1b.

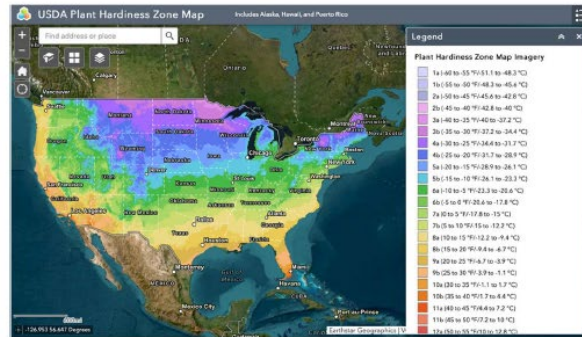
The “b” is always a little warmer than the “a” zone.

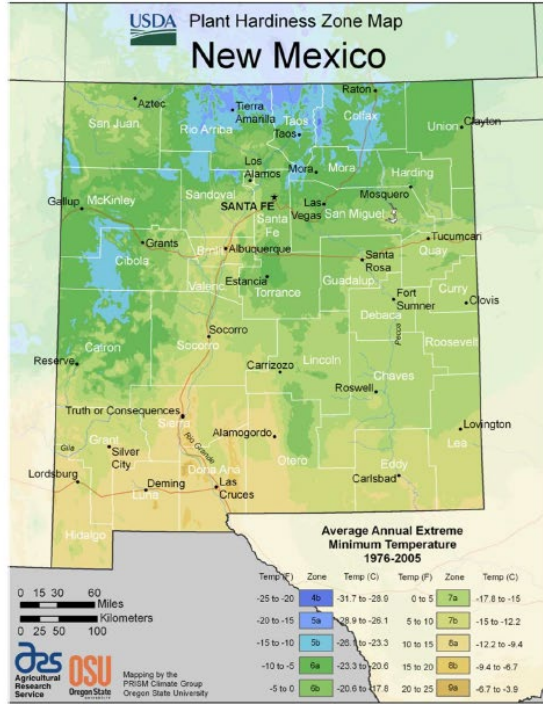
There are more on the guide, but they aren't all shown.



#### 4) What do you notice about the zones?

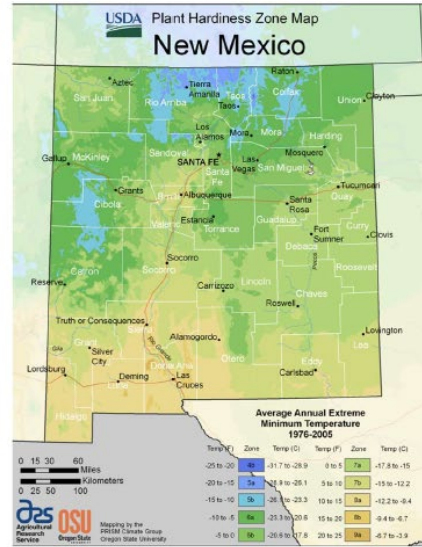
As you go south, they get warmer. They are colder to the north. They are also not in perfect lines.





### 5) How many zones are in New Mexico?

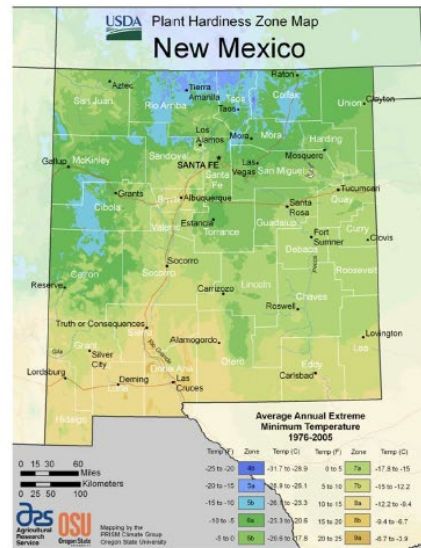
10 zones (includes a and b subgroups)



## 6) What patterns do you notice in New Mexico

Answers may vary

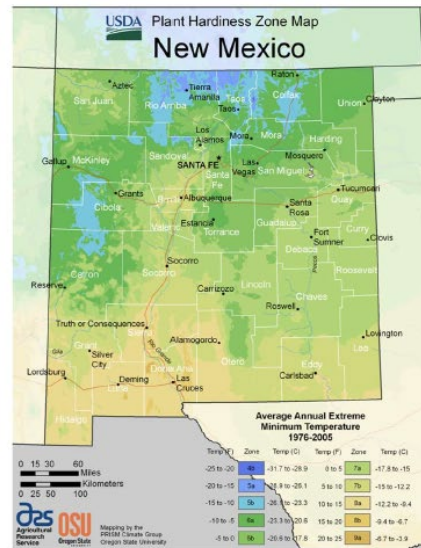
- Mostly colder zones up north, but there are a few to the West.
- Warmer to the South.
- Some of the 6 zones go farther South
- Some of the 7 zones go farther North



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## 7) What is zone where you live?

Answer will vary based on location



# Lesson 4

Slides 30-31

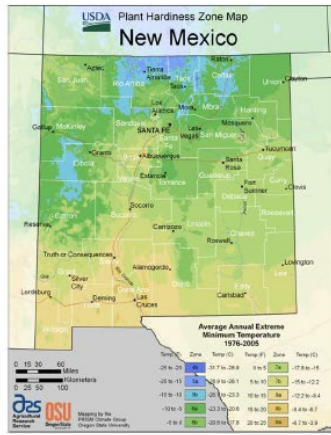
30

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Time to connect it all...



Source: <https://planhardiness.ars.usda.gov>



Source: <https://pdi.scinet.usda.gov/phzm/vm/NM300.jpg>



Source: <https://indianpueblo.org/new-mexico-19-pueblos/>

# Culminating Activities

Slides 32-35

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## Final Resource When to plant the three sisters seeds

	<b>Zone 4</b>	<b>Zone 5</b>	<b>Zone 6</b>	<b>Zone 7</b>
<b>Beans</b>	Beginning of June	Middle of May	Beginning of May	Beginning of April
<b>Corn</b>	Beginning of June	Middle of May	Beginning of May	Beginning of April
<b>Squash</b>	Beginning of June	Middle of May	Beginning of May	Beginning of April

Resource: Planting guide for three sisters  
(dates from ufseeds.com)

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## Why is this important?

Think about where the different Pueblos are located and their planting zones. Knowing which zone you are in helps you know when to plant. Pueblo farmers have come to know when to do this without using the USDA map. They have learned through trial and error and shared the knowledge through many generations.

## What activities can I do?

Activity	Description
1. Poster or Slides comparing Pueblos in three different zones.	Learners should pick three Pueblos that are in three different planting zones. Create a poster or slides that indicates which Pueblo Nation is being presented. The traditional name (if they can find it). The main planting zone as well as any zones that are nearby. Also, the poster should indicate when this Pueblo should plant the three sisters.
2. Planting Guide	Learners can create a booklet or pamphlet that shows when to plant the three sisters based on which Pueblo they are at. They can choose to do a comprehensive guide for all the Pueblo Nations or just pick a few, whatever time allows. A map can also be used to show locations.
3. Comic, story or drawing	Students can create an artistic/writing product that displays/discusses some of the ideas covered in this unit. Recommended areas of focus should emphasize Pueblo locations, the maps that were studied, environment, planting zones and time of planting three sisters. A narrative should include a few of these previous topics.
4. Long-term planting project	Students or class can use the guide above to plant the different seeds at various times of the year. Class should note which Pueblos would be represented by planting at a certain time.

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