

weather can be harmful. In Lessons 25 and 26, students compare severe weather data for several cities, including their own, to determine that in each location, some kinds of severe weather are more likely to happen than others. In addition, students learn about how communities prepare for and respond to severe weather. In Lesson 27, students apply their knowledge to the anchor phenomenon in a Conceptual Checkpoint as they describe how the cliff dwellings may have protected the Ancestral Pueblo people from severe weather.

Lessons 28 through 30 conclude the module. In Lesson 28, students participate in a Socratic Seminar and use their learning from throughout the module to answer the Essential Question: **How did the cliff dwellings at Mesa Verde protect people from the weather?** In Lesson 29, students apply their conceptual understandings in an End-of-Module Assessment. Finally, the class debriefs the End-of-Module Assessment in Lesson 30 to clarify misconceptions, and students reflect on their work throughout the module to reveal how they built their knowledge.

Module Map

Anchor Phenomenon: Cliff Dwellings at Mesa Verde

Essential Question: How did the cliff dwellings at Mesa Verde protect people from the weather?

Weather affects people and their surroundings.

Concept 1: Parts of Weather

Focus Question: What is weather?

Weather is the combination of sunlight, clouds, wind, rain and snow, and temperature in a particular place at a particular time. Different parts of weather have different effects on people and their surroundings.

Science Topic	Phenomenon Question	Student Learning	Texas Essential Knowledge and Skills for Science	English Language Proficiency Standards
Cliff Dwellings at Mesa Verde	How could people who lived at Mesa Verde protect themselves from the weather?	<p>Shelters can protect people from the weather.</p> <ul style="list-style-type: none">Lesson 1: Build a tent to explore the purpose of shelters.Lesson 2: Develop an anchor model of a Mesa Verde cliff dwelling.	K.2A K.3C K.8A	3E 3J 4A
Local Weather	What can we do outside today?	<p>Weather has many parts. These parts include sunlight, clouds, wind, rain and snow, and temperature.</p> <ul style="list-style-type: none">Lesson 3: Examine and sort photographs of outdoor activities and ask questions about the weather.	K.2A K.2D K.4B K.8A K.8C	1C 4C



Science Topic	Phenomenon Question	Student Learning	Texas Essential Knowledge and Skills for Science	English Language Proficiency Standards
Describing Weather	How can we describe the weather?	<p>People can observe or measure cloud cover, rain and snow, temperature, and wind to describe the weather.</p> <ul style="list-style-type: none"> ▪ Lesson 4: Record observations of cloud cover, rain, and snow. ▪ Lesson 5: Learn how to use a thermometer to measure temperature. ▪ Lesson 6: Design a tool to measure the wind. ▪ Lesson 7: Create, improve, and share a wind measuring tool. 	K.2B K.2C K.2D K.2E K.3A K.3C K.4A K.4B K.5A K.8A K.8C	1C 4A
Effects of Weather	How does the weather affect us when we play at the playground?	<p>Sunlight, wind, and rain can affect people and their surroundings.</p> <ul style="list-style-type: none"> ▪ Lesson 8: Model the effects of sunlight, wind, and rain on playground materials. ▪ Lesson 9: Investigate temperature differences between areas in sunlight and areas in shade. 	K.2A K.2B K.2C K.2D K.2E K.4A K.4B K.5B K.6A K.8A	3C 3G
Parts of Weather	What is the weather like at Mesa Verde?	<p>Weather is the combination of sunlight, clouds, wind, rain and snow, and temperature in a particular place at a particular time. Different parts of weather have different effects on people and their surroundings.</p> <ul style="list-style-type: none"> ▪ Lesson 10: Recognize that different homes are shelters that can protect people from the weather. ▪ Lesson 11: Describe how the cliff dwellings at Mesa Verde protected people from the weather. 	K.2C K.2D K.4A K.4B K.6A K.7C K.8A K.8C	2F 3F

Application of Concepts

Task	Phenomenon Question	Student Learning	Texas Essential Knowledge and Skills for Science	English Language Proficiency Standards
Engineering Challenge	How can we help archaeologists feel cooler when they work?	<p>People can use the engineering design process to create shelters for shade.</p> <ul style="list-style-type: none"> ▪ Lessons 12–16: Apply the engineering design process to create a shelter that helps archaeologists feel cooler when they are working in the sunlight. 	K.2A K.2B K.2C K.2E K.3A K.3C K.4B K.5A K.5B K.6A	2F 3G

Concept 2: Weather Data

Focus Question: What does weather data reveal?

Analyzing weather data can reveal patterns.

Science Topic	Phenomenon Question	Student Learning	Texas Essential Knowledge and Skills for Science	English Language Proficiency Standards
Local Weather Data	What can we find out by looking at weather data?	<p>Weather data collected over time may reveal patterns.</p> <ul style="list-style-type: none"> ▪ Lesson 17: Use weather data to identify and describe patterns in daily temperature changes. ▪ Lesson 18: Summarize monthly temperature data. ▪ Lesson 19: Summarize monthly weather data. ▪ Lesson 20: Explore how meteorologists predict weather and develop weather forecasts. 	K.2C K.2D K.3B K.3C K.8A K.8B	3H 4A 4E
Weather Data	What can we find out about Mesa Verde by looking at weather data?	<p>Analyzing weather data can reveal patterns.</p> <ul style="list-style-type: none"> ▪ Lesson 21: Use data to describe daily temperature patterns at Mesa Verde. 	K.2D K.3B K.7C K.8A K.8B	3F



Concept 3: Severe Weather*Focus Question: How does severe weather affect us?*

Meteorologists can predict severe weather so that communities can prepare.

Science Topic	Phenomenon Question	Student Learning	Texas Essential Knowledge and Skills for Science	English Language Proficiency Standards
Effects of Severe Weather	How can weather be harmful?	<p>Severe weather can be harmful to communities.</p> <ul style="list-style-type: none"> ▪ Lesson 22: Observe and record information about different kinds of severe weather. ▪ Lesson 23: Share information about different kinds of severe weather. ▪ Lesson 24: Describe how severe weather affects communities. 	K.2A K.2D K.4B K.8A K.8B K.8C	3J 4A
Preparing for Severe Weather	How can we prepare for severe weather?	<p>Meteorologists use patterns to forecast severe weather so that communities can prepare and respond.</p> <ul style="list-style-type: none"> ▪ Lesson 25: Use data to identify and describe severe weather patterns. ▪ Lesson 26: Describe how communities prepare for and respond to severe weather. 	K.2A K.2D K.3B K.3C K.8B	2F 3E
Severe Weather	How did severe weather affect people at Mesa Verde?	<p>People can predict severe weather so that communities can prepare.</p> <ul style="list-style-type: none"> ▪ Lesson 27: Describe how severe weather may have affected the Ancestral Pueblo people at Mesa Verde. 	K.2D K.7C K.8B	2E

Application of Concepts

Task	Phenomenon Question	Student Learning	Texas Essential Knowledge and Skills for Science	English Language Proficiency Standards
End-of-Module Socratic Seminar, Assessment, and Debrief	How did the Blizzard of 1978 affect people in Boston?	<p>Weather affects people and their surroundings.</p> <ul style="list-style-type: none"> ▪ Lesson 28: Explain how the cliff dwellings at Mesa Verde protected people from the weather. (Socratic Seminar) ▪ Lessons 29: Describe the weather during the Blizzard of 1978 in Boston, and explain how the storm affected people there. (End-of-Module Assessment) ▪ Lesson 30: Explain how the weather affects people and their surroundings. (End-of-Module Debrief) 	K.3B K.8A K.8B K.8C	3E 3F

