# **Learning Guide**



### Petroglyphs

We hope you enjoyed learning all about the ancient rock carvings known as petroglyphs in this episode. Extend your learning with this print-ready Learning Guide!



### What's in this Learning Guide?

#### Get Set to Listen:

Check your knowledge before and after listening to the episode by determining if statements are TRUE or FALSE.

#### Vocabulary

#### **Discussion Questions**

CCSS.ELA-Literacy.SL.3-8.1; CCSS.ELA-Literacy.SL.3-8.3

#### **Writing Prompts and Extension Projects**

CCSS.ELA-Literacy.W.3-8.1; CCSS.ELA-Literacy.W.3-8.2; CCSS.ELA-Literacy.W.3-8.3; 4-NGSS: ESS2-1 Earth's Systems; 3-5-ETS1-3 Engineering Design

#### **Pictograph Storytelling**

CCSS.ELA-Literacy.W.3-8.3;

#### Additional Resources and Book List





## Get set to listen.

#### 1. Before listening!

# Read each statement and write TRUE or FALSE based on what you already know.

#### 2. After listening!

Based on what the experts said in the episode, write TRUE or FALSE.



Before Listening	TRUE or FALSE?	After Listening
	1. Touching petroglyphs can damage them because of the oils in our hands.	
	2. Over 500 petroglyphs have currently been found in the Petroglyph National Monument.	
	3. Petroglyphs can be found just about everywhere in North America.	
	4. Acoma pueblo is one of the longest continuously inhabited communities in the United States.	
	5. <b>Desert varnish</b> is a rust-like quality that happens to the outside of the rock over thousands of years where the outer layer of the rock becomes very dark. It can only be found in the American Southwest.	
	6. <b>Radiocarbon dating</b> can be used to date the petroglyphs.	
	7. <b>Petroglyphs</b> are images painted on rocks.	

What did	you	learn?
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### Get set to listen.

## **Answer key**

- 1.TRUE
- 2. FALSE: Over 60,000 petroglyphs have currently been found in the Petroglyph National Monument, and it is expected that there are at least double that.
- 3.TRUE
- 4. TRUE
- 5. FALSE: **Desert varnish** can be found in many deserts around the world. It develops over time in a cycle of rain, soil deposition, and then the sun baking it in.
- 6. FALSE: **Radiocarbon dating** cannot be used to date the petroglyphs. Instead, secondary or relative dating is used. Styles can also be compared.
- 7. FALSE: **Petroglyphs** are



# Vocabulary

petroglyph:	An image that has been carved into a rock. They can be on different types of rock. Pictures the represent different things, but the meaning is much deeper to their makers and their descendants. They tell a story of everyday life.
pictograph:	Paintings on rocks. They erode quickly, unless protected by being painted on the inside of caves or inside ancient buildings like kivas.
basalt:	A type of lava rock into which many petroglyphs in the Southwest are carved.
desert varnish:	A rust-like quality that happens to the outside of the rock over thousands of years where the outer layer of the rock becomes very dark. This layer can be removed to carve petroglyphs.
solar marker or equinox marker:	A special type of petroglyph or other marking that uses a shadow cast by a nearby object to mark a significant day and time, such as equinox.
graffiti:	Writings or drawings scribbled, scratched, or sprayed quickly and illegally on a wall or other surface in a public space
radiocarbon dating:	A way to find out how old something is that was once alive. It works by measuring the amount of a special kind of carbon, called carbon-14, that's left in the item.
secondary dating or relative dating:	Comparing the darkness of one petroglyph in the same place as another to determine which one is darker, and therefore older.
ethnography:	The study of cultures that are present in modern times. Puebloan petroglyphs provide a unique opportunity to study ancient artifacts and consult modern Puebloan people to compare and gain valuable insight into their significance.

## **Discussion Questions**

- 1. Are petroglyphs graffiti? Why or why not?
- 2. What do petroglyphs reveal about the daily lives, beliefs, and values of ancient peoples?
- 3. In what ways can petroglyphs be considered a form of communication or storytelling?
- 4. Should we attempt to interpret the meanings of petroglyphs, or is that projecting modern perspectives onto ancient symbols?
- 5. What are the challenges and responsibilities involved in preserving petroglyph sites?
- 6. Should tourists be allowed to visit petroglyph sites, or does this put them at too much risk of damage?
- 7. What role should Indigenous communities play in the protection and interpretation of petroglyphs?

#### **Group Discussion Strategies**

#### **Think Pair Share:**

- 1. Individually, student writes down their answer to a question.
- 2. Students pair up and tell each other their answers.
- 3. Teacher calls for volunteers to share with the whole class their answer (and/or their partner's answer). Teacher notes key words/phrases on board.

#### **Round Robin:**

- 1. Teacher poses one question (written on top of a large page) to students, who are assembled into small groups of 3 or 4.
- 2. Students take turns brainstorming the answers. The recorder of the group writes down all answers.
- 3. The leader reads the group's ideas to the entire class. Teacher moderates.



# **Writing Prompts**

#### **Reflect on the Future Prompt:**

Petroglyphs that we see today are likely a small fraction of what existed at the time they were made. Erosion and the inevitable breakdown of materials has destroyed much more. Think about the objects and other evidence of your life. What do you think will remain in 400-700 years from now? What do you think anyone who finds this evidence of your life will think about you and the way you lived your life?

**Extension:** Make a time capsule. What objects would you choose to leave behind for future generations to learn about you? What would you hope to communicate to future generations about you? What objects or other evidence would you choose to leave them?

#### **Process Prompt:**

Describe how petroglyphs are made.

**Extension:** Experiment with using different tools to carve into different types of rocks. What materials and tools work best?

#### **Compare and Contrast Prompt:**

What's the difference between graffiti and petroglyphs/pictographs?

#### **Personal Journey Prompt:**

A spiral is meant to describe a journey from one place to another, often spiritual pilgrimages to sacred places. Spiral petroglyphs mark significant places in those ancient journeys. Write about an important journey you took or would like to take.

Extension: Draw a spiral with sidewalk chalk. Write about your journey on the spiral.

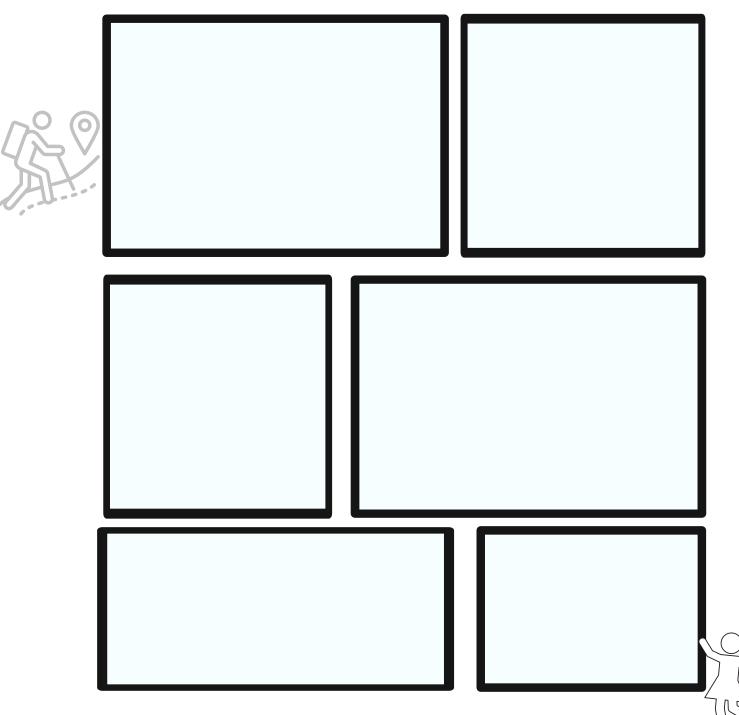
# "Take a pause, and you'll often see something beautiful." archeologist Jared Roberts



# Pictograph Storytelling

When you see a petroglyph, you are seeing a story. It is a symbol that represents more than just an animal or place. It is a symbol of sacredness that exists between the real world and what their Pueblo creators consider to be the spiritual world. Petroglyphs tell a story of everyday life. They tell about celestial events and other important events.

Tell your own story of important events in your life using pictures.





### **Additional Resources**

#### **Curriculum Materials from Petroglyphs National Monument**

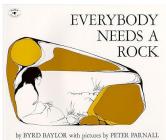
These ready-to-use lessons cover topics like Ancestral Puebloans, Petroglyphs, Geology, and Spanish Influence, and align with Social Studies, Science, and Art.

#### **Traveling Trunks at Petroglyph National Monument:**

Invite a Park Ranger for a customized classroom program with hands-on activities on topics like Ancestral Puebloans, Volcanology, and Desert Mammals.

#### Mesa Prieta Petroglyph Project

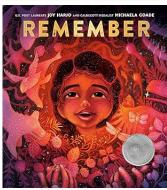
Mesa Prieta Petroglyph Project has developed curriculum for students in 4th – 8th grade to learn even more about petroglyphs, and their meanings.



#### Everybody Needs a Rock

by Byrd Baylor, illustrated by Peter Parnall

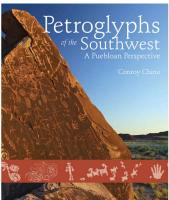
Baylor's gentle, imaginative story that encourages readers to find their own special rock, celebrating nature and the importance of personal connection is matched with stunning illustrations.



#### Remember

by Joy Harjo, illustrated by Michaela Goade

Goade beautifully illustrates Harjo's poem that encourages readers to connect with their roots, nature, and ancestors, reminding them that everything in the world is interconnected.



#### Petroglyphs of the Southwest: A Puebloan Perspective

by Conroy Chino

An exploration of the history, cultural significance, and meanings of ancient rock carvings created by Native peoples across the Southwestern United States.