

Petroglyphs: Snapchat of Ancient Times

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Grade Level High School
Duration 1-2 class periods

National Standards

GEOGRAPHY

Element 2: Places and Regions

4. The physical and human characteristics of places

Element 4: Human Systems

10. The characteristics, distribution and complexity of Earth's cultural mosaics

Element 5: Environment and Society

14. How human actions modify the physical environment

AZ Standards

ELA

Reading Informational Text

9-10.RI.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text
11-12.RI.9 Analyze foundational U.S. and world documents of historical and literary significance for their themes, purposes, and rhetorical features.

Language

Vocabulary Acquisition and Use

9-10.L.6 and 11-12.L.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

SCIENCE

Dependent on Scenarios Created by Students for Petroglyphs

HS.E1U1.11 Analyze and interpret data to determine how energy from the Sun affects weather patterns and climate.

HS+E.E1U1.4 Analyze and interpret geoscience data to make the claim that dynamic interactions with Earth's surface can create feedbacks that cause changes to other Earth systems.

HS.E1U3.14 Engage in argument from evidence about the availability of natural resources, occurrence of natural hazards, changes in climate, and human activity and how they influence each other.

HS+E.E1U3.11 Develop and use a quantitative model to illustrate the relationship among Earth systems and the degree to which those relationships are being modified due to human activity.

HS.L2U3.18 Obtain, evaluate, and communicate about the positive and negative ethical, social, economic, and political implications of human activity on the biodiversity of an ecosystem.

HS+B.L4U1.2 Engage in argument from evidence that changes in environmental conditions or human interventions may change species diversity in an ecosystem.

Arizona Social Science Standards

GEOGRAPHY

Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.

HS.G3.1 Analyze the reciprocal nature of how historical events and the diffusion of ideas, technologies, and cultural practices have influenced migration patterns and the distribution of human population.

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SIOP Elements		
Preparation Adapting content Linking to background Linking to past learning Strategies used	Scaffolding Modeling Guided practice Independent practice Comprehensible input	Grouping Option Whole class Small groups Partners Independent
Integrating Processes Reading Writing Speaking Listening	Application Hands on Meaningful Linked to objectives Promotes engagement	Assessment Individual Group Written Oral

Arizona English Language Proficiency Standards

Grade 9-12

Basic

Speaking and Writing

Standard 3 By the end of each language proficiency level, an English learner can speak and write about grade appropriate complex literary and informational texts and topics.

B-1: deliver short oral presentations that include some details to develop a topic.

B-2: compose written narratives using appropriate conventions that include details and examples to develop a topic.

B-4: integrate graphics or multimedia when useful.

Overview

The development of means of communication has impacted man's ability to relate to others as an individual, as a group, or as a nation. Means of communication have changed from man's early days to the present but the purposes have not.

Purpose

In this lesson students will learn about one form of communication—petroglyphs. Why and how were they used, and how many other cultures also used this means of communication? This lesson contains strategies for diverse learners.

Key Vocabulary

petroglyph: a picture made by chiseling directly on the rock using a stone chisel and a hammer stone
cultural diffusion: the mixing or blending of different ideas, beliefs, and innovations from one group to another

geocontourglyph: a petroglyph that shows a landform or surrounding terrain

Snapchat: mobile messaging application used to share photos, videos, text, and drawing

emoji: a small digital image or icon used to express an idea, emotion, place, direction, or objects

communication: the act or process of using words, sounds, signs, or behaviors to express or exchange information to one or more people

Materials

- Vocabulary cards
- Petroglyphs, the Snapchat of the Ancients PowerPoint
- Petroglyph Scoring Guide
- Vocabulary Quiz and Answer Key
- Art supplies
- Computer and projection device

Objectives

The student will be able to:

1. Describe how ancient and modern man shared ideas through communication.
2. Explain how cultural diffusion played a part in the spreading of ideas and information.
3. Analyze the symbols used on petroglyphs.
4. Describe how many symbols are similar over different cultures.
5. Compare the modern emojis used on communications to ancient petroglyph symbols.

Procedures

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SESSION ONE

Engage:

1. Ask students how did our ancestors communicate important information? List their ideas on the whiteboard. Show the timeline of communications found at: https://en.wikipedia.org/wiki/Timeline_of_communication_technology
2. Divide students into partner groups. Now give the groups the following scenario: "You have been transported back in time to the early 1400's and you live in the area that today is Prescott, AZ. How would you tell others critical information such as disasters, possible hunting time/areas, as well as special events that are occurring? Be sure to consider what natural materials you would have available for spreading the information." (**Preparation: Adapting content, Linking to Background; Grouping option: Partners**)
3. Have partner groups share their ideas. Either elaborate on a partner group that came up with petroglyphs or lead students into a discussion of how the actual inhabitants of the Prescott area did communicate with petroglyphs. Show Slides 2, 3, and 4 of the petroglyphs on the Snapchat of the Ancients PowerPoint. (**Application: Linked to objectives; Scaffolding: Comprehensible input; Grouping Option: Partners, Whole class**)

Explore:

1. Have partner groups create a petroglyph that clearly communicates an idea.
2. Have the rest of the students decipher the petroglyph and explain why they interpreted it in the manner they did. (**Grouping Option: Partners, Small group; Application: Hands on, Promotes engagement**)

SESSION TWO

Explain:

1. Show Slides 5-7 to give students more background about petroglyphs. Use Slide 7 to take a virtual field trip to a location with petroglyphs. (**Scaffolding: Comprehensible input**)
2. Explain the steps in Slide 8. Have partner groups create an event, a tradition, or a warning that a group of people living many years ago (before paper and writing) would want to communicate. Collect up their scenarios and put

in a container. (**Application: Promotes engagement**)

3. Have partner groups draw a scenario out of the container and brainstorm what they would create for a petroglyph.
4. Show Slide 9. Share the Petroglyph Scoring Guide so students can see how their petroglyph assignment will be graded. (**Scaffolding: Comprehensible input**)
5. Distribute art supplies and have the partners create their petroglyph. (**Application: Hands on**)

Elaborate:

1. When all of the groups have finished, have each group share their petroglyph and explain what it represents. Record similarities in artwork as well as explanations on the whiteboard. (**Integrating Processes: Speaking, Listening**)
2. Show Slide 10. Have a group discussion on the 4 questions on the slide or complete as a writing assignment. (**Grouping Option: Whole class**)

Evaluate:

1. Give the Vocabulary Test. Score students as they are presenting their explanation of the petroglyph created by them. (**Assessment: Individual, Written, Group, Oral**)

Assessment

ELA, Science, and Geography

The Vocabulary Test can be graded for accuracy. Mastery will be considered 80% or higher.

The petroglyph created and the explanation of the message can be graded using the Petroglyph Scoring Guide. Mastery will be considered 26 points or higher.

Extensions

Show Slide 11 and have table talks about these discussion topics.

Sources

Timeline of Communication
https://en.wikipedia.org/wiki/Timeline_of_communication_technology