

Tiny Sparks: Science and Storytelling in Early Learning

Lesson Title: Whispers of the Past: Ancient Art and the Stories They Tell

Grade Level: Preschool

Lesson Length: 50 minutes

AZ Science Standard:	Social Studies strand 3 Concept 1: Understanding Time Past, Present, and Future.
Learning Objective:	<ul style="list-style-type: none"> • Students will identify at least two materials used by ancient humans to create cave art, such as charcoal and pastel chalk. • Students will create their own "cave art" using natural materials, demonstrating an understanding of how ancient people expressed their stories through visual representations

Vocabulary	Materials
<ul style="list-style-type: none"> • Archaeology • Archaeologist • Excavate • Artifact • Caves 	<ul style="list-style-type: none"> • The book: Discovery in the Cave by Mark Dubowski • The book: Ancestry: The Mystery and Majesty of Ancient Cave Art • Primary colors (red, blue, yellow) of washable tempera paint. • Pastel Chalks or Charcoal • Brushes • Paper plates • Flashlight • Cutout animal and hand templates

Costume Element:

Costumes play a vital role in storytelling by engaging children in immersive experiences, visually representing characters and concepts, and boosting cognitive skills through interactive play. They encourage creativity and support multi-sensory learning, making scientific concepts more accessible and memorable for young learners.

- **Archaeologist Explorer:** Use a vest, shorts, and hat, and include occupation stickers like "Archaeologist" to create a fieldwork look.
- **Indiana Jones-Inspired:** Incorporate a fedora hat and a leather jacket to evoke the iconic archaeologist character.
- **Ancient Civilization Character:** Dress up as a figure from an ancient culture, such as an Egyptian pharaoh or a Greek philosopher, to connect with historical contexts.
- **Fossil Hunter:** Wear a safari-style outfit with props like a magnifying glass or a toy dinosaur fossil to explore paleontology.

Guiding Questions:

- How do people express ideas through art?
- Why do people use images to communicate?
- People didn't always have paper to paint on. What are some other materials people painted on?

Engagement/Introductory Activity:

- Gather children in a circle
- Introduce the book: "Ancestry: The Mystery and Majesty of Ancient Cave Art" by Hannah Salyer
- Show the cover and ask children what they think the story might be about

Exploratory Activity:

Storytelling (15 minutes)

- Read aloud to the class, showing the illustrations.
- Pause occasionally to ask simple questions about what they see and what they think might happen next.
- After reading, discuss what tools archaeologists use and how they carefully uncover artifacts.

Science Activities

Color Mixing (15 minutes)

- Provide children with primary colors (red, blue, yellow) of washable tempera paint.
- Demonstrate how to mix colors to create new ones, similar to how cave painters might have created their pigments.
- Let children experiment with mixing colors on paper plates.

Shadow Tracing (15 minutes):

- Use a flashlight to cast shadows of small animal figurines or cardstock cutouts on a large piece of paper taped to the wall.
- Have children take turns tracing the shadows, mimicking how cave artists might have used firelight to create their art.
- Provide different natural materials that could be used for drawing, such as charcoal, and pastel chalks.

Art Activity: Prehistoric Cave Art. Materials Needed: Large sheets of brown or tan paper (to simulate cave walls); pastel chalk; & Stencils of animals or hand-shaped templates (optional).

- Spread brown paper on a protected surface.
- Provide stencils of animals and hand-shaped templates to the students.
- Encourage them to create artwork.

This activity aligns with the archaeological theme by mimicking ancient cave painting techniques and allowing preschoolers to imagine how early humans might have created art.

Conclusion (5 minutes)

- Gather students back in a circle.
- Recap how archaeologists carefully uncover and study objects from the past.
- Ask the students what colors they created
- Ask the students to share about the art activities.

Explain:

- "Tell me about the animals or shapes you painted on your 'cave wall'. Why did you choose those?"
- "How do you think the cave artists made their paints? How was it different or similar to how we made our paint today?"
- "If you couldn't use words, how would you use pictures to tell a story about your day?"
- "What was the most surprising thing you learned about cave art today? Is there anything you're still curious about?"

Extension Activity/Questions:

Modern-Day Cave Art:

- Ask students to imagine they were creating "cave art" about their own lives today.
- What would they draw to represent their family, home, or favorite activities?
- How would future archaeologists interpret these drawings?
- Have students create a "modern cave art" panel using simple shapes and symbols to tell a story about their daily life.

This activity encourages students to apply the concept of visual storytelling to their own experiences and helps them understand the interpretive challenges faced by archaeologists.

Clay Impressions:

- Give each student a small ball of air-dry clay.
- Provide various objects (like shells, plastic dinosaurs, or textured toys) for making impressions.
- Demonstrate how to press objects into the clay to create imprints.
- Encourage students to create their own artifact impressions.

Nature's Paintbrush:

- Take students on a nature walk (or bring natural materials into the classroom) to explore natural pigments.
- Can they find items in nature that could be used to make different colors (e.g., berries, leaves, soil)?
- How might early humans have discovered these natural pigments?
- Allow students to experiment with crushing or rubbing these materials on paper to create colors.

This extension connects the art-making process to the natural environment, helping students understand how early humans might have interacted with their surroundings to create art.



Evaluation Activity:

Enlist the teacher's help to record the following data as needed.

Observational Assessment:

- Observe students during the eclipse demonstration and art activity, noting their engagement and comments
- Document students' behaviors and conversations in anecdotal notes

Verbal Assessment:

- Use open-ended questions during and after activities to gauge understanding
- Engage in purposeful interactions to elicit children's thinking about eclipses

Work Samples:

- Collect and analyze students' eclipse chalk drawings as evidence of learning.