

Tiny Sparks: Science and Storytelling in Early Learning

Lesson Title: Archaeology Tales: Unearthing Creativity and Curiosity

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 be able to describe at least two tools or methods that archaeologists use to discover and study artifacts from the past. • Students will be able to create an artistic representation of an archaeological discovery, demonstrating basic understanding of how scientists explore historical sites and objects.

Vocabulary	Materials
<ul style="list-style-type: none"> • Archaeology • Archaeologist • Excavate • Artifact 	<ul style="list-style-type: none"> • The book "Archaeologist on a Dig" by Sue Fliess • Sensory bins with 6 items to be excavated • Brushes and Spoons • Laminated artifact sheet (with the 6 items pictured) • Art Activity materials (see options below)

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:

- Why are archaeologists interested in learning about people and cultures that lived a long time ago?
- Why should we learn about past cultures?
- Why did those people paint pottery?

Engagement/Introductory Activity:

- Gather children in a circle
- Introduce the book "Archaeologist on a Dig" by Sue Fliess
- Show the cover and ask children what they think the story might be about

Exploratory Activity:

Storytelling (15 minutes)

- Read "Archaeologist on a Dig" 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 Activity: Mini Archaeological Dig (20 minutes)

- Divide students into small groups.
- Provide each group with a sensory bin with filler.
- Hide at least 6 small objects (like toy dinosaurs, plastic coins, shells, or small pottery shards) in the sand.
- Give each student a small brush and plastic spoon to act as excavation tools.
- Let students carefully dig and brush away the sand to uncover their artifacts.
- Have the students place the found items on the laminated sheet to ensure they excavate all the items.
- Encourage students to describe what they find and where they found it in the tray.

Art Activity (Option #1): Reconstruct an Ancient Pot

- Materials: Potsherd printout; Pair of scissors; Glue stick (tape or liquid glue can be used too); Blank piece of paper; & Pencils, crayons, or markers
- Cut out each of the potsherds.
- Lay out all your potsherds on a flat surface. Do any of them look similar?
- Match up pieces next to one another. Like the pots you use at home, this pot is round, and the designs connect just like the pictures on a puzzle.
- Once you have arranged your potsherds into a pot, glue the pieces next to one another on your blank piece of paper. You should have two or three pieces of your pot missing just like archaeologists working in the lab!
- On your piece of paper, draw in what you think the missing potsherds would have looked like.

- Show off your reconstructed pot and its story! You are now an archaeologist!

Art Activity (Option #2): Create Your Own Artifact

- Materials: Artifact printouts; and crayons or markers.
- Print enough artifacts so there are enough for each student.
- Have each student decorate their pot.

Art Activity (Option #3): Archaeology Memory Game

- Create a set of large cards with pictures of archaeological tools, such as brush, trowel, magnifying glass; another set with pictures of their activities such as cleaning artifacts, digging, examining small details).
- Have the students excavate cards from a grid and try to find matches.

Conclusion (5 minutes)

- Gather students back in a circle.
- Invite a few volunteers to share what they discovered in their dig.
- Ask students to share their vase artifacts.
- Recap how archaeologists carefully uncover and study objects from the past.

Explain:

- "Can you tell me about the artifacts you found? How do you think they might have been used long ago?"
- "If you were an archaeologist and found the artifact you made, what would you think about the people who made it? What questions would you have?"
- "How would people living in the past use your pot?"
- Ask students to tell the story of their pot. What was it used for? It is important for archaeologists to be able to use artifacts to learn about the past.

Extension Activity/Questions:

Time Capsule Creation: Encourage students to create their own "time capsule" to help future archaeologists learn about our time. Ask them:

- "If you could put three things in a box to tell people in the future about our life today, what would you choose?"
- "Why did you choose these items?"
- "What do you think archaeologists in the future might learn from your time capsule?"

This activity helps students apply their understanding of artifacts and their significance to a modern context, encouraging them to think critically about what objects represent our culture and daily life.

Storytelling Through Objects: Bring in a few common household items (like a spoon, a toy car, or a piece of clothing) and challenge the students to imagine these as ancient artifacts. Ask them:

- "If an archaeologist found this object 1000 years from now, what story might they tell about how people lived?"
- "How might this object be different in the future?"

- "What would you want to tell future archaeologists about how we use this object today?"

This extension encourages students to view everyday objects from a different perspective, applying their new knowledge about archaeology to familiar items. It also promotes imaginative thinking and storytelling skills.

Evaluation Activity:

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

Archaeological Tool Matching Game:

- Create a set of large cards with pictures of archaeological tools (e.g., brush, trowel, magnifying glass) and another set with pictures of their uses (e.g., cleaning artifacts, digging, examining small details).
- Lay out the cards and ask students to match the tool to its use.
- Observe how accurately they can pair the items and explain their choices.

"Show and Tell" Artifact Presentation:

- Have each student present their created artifact to the class.
- Ask them to explain:
 - a) What their artifact is
 - b) What it might have been used for in the past
 - c) How an archaeologist might find it (e.g., by digging, using a metal detector)

Observational Assessment:

Throughout the lesson and activities, observe and note:

- Students' engagement and participation in discussions
- Their use of new vocabulary words (artifact, excavate, archaeologist)
- The level of detail in their archaeological site drawings
- Their ability to make connections between the story and the activities

Group Recap:

At the end of the lesson, gather students in a circle and ask:

- "What does an archaeologist do?"
- "Name one tool an archaeologist uses".
- "What's one thing we learned about finding things from long ago?"