Paleontological Practice

PreK & Kindergarten

Duration
Pre-Visit: 15-30 minutes

Visit: 20-30 minutes

Post-Visit: 15 minutes

Location
Dinosaur Hall

Supplies
- KWL chart
- Pictures or objects to describe
- Scavenger Hunt worksheets
- Pencils

Standards
NGSS

K-2-ETS1-1

S+E Practices

1,4,6,7,8

CCSS ELA

W.2, W.8, SL..1.a.b, SL.4, SL.5, SL.6

CA State

Life Science 2.a

Vocabulary
Paleontologist · Fossil · Observation · Description · Dinosaur

Student Work

Concepts

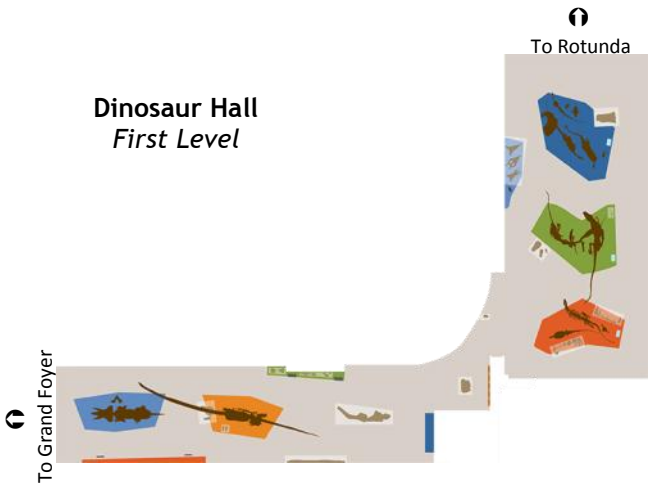
- Paleontologists are scientists that study fossils.
- Dinosaurs are a kind of fossil.
- Paleontologists make careful observations and describe them.

Objectives

- Students will know what a fossil and paleontologist is.
- Students will explore and build on their current dinosaur knowledge using a Know-What-Learn approach.
- Students will observe and describe fossils.

Outline

1. In the classroom, students will learn new terminology, begin the KWL process and practice making observations and describing objects.
2. At the Museum students will explore the Dinosaur Hall and make observations and descriptions using the scavenger hunt activity.
3. Back in the classroom, students will reflect on what they observed through finishing the KWL chart and completing an optional activity.



Pre-Visit

On a large piece of paper or white/chalk board, outline a KWL chart. Then, gather students and tell them that they are going to the Natural History Museum to study fossils. Explain that **fossils** are evidence, or proof, of ancient life. There are many kinds of fossils (bugs in amber, frozen mammoths, mummies). And scientists that study fossils are called **paleontologists**. During this trip to the NHM, we are going to be paleontologists that study dinosaur fossils! **Dinosaurs** are animals (reptiles) that lived on land *millions* of years ago!

Ask the students, what are some things that we know about Dinosaurs? As students come up with ideas, write them down in the 'Know' section of the chart. Don't worry about students coming up with correct answers, this is all about them thinking and coming up with as many ideas as possible.

When they are finished review the list, then ask the students, what are some things we would like to know about Dinosaurs? Write down questions in the 'Want to Know' section.

Thank them for all their work and explain that we are going to have some time during our trip to the Natural History Museum to investigate a couple of these questions.

Teaching note: based on your knowledge of the students and the activity, you may choose to add or subtract questions from the Scavenger Hunt, or adapt them. You may also choose to transfer information from the larger KWL chart to a portable version to have handy at the Museum.

Next, explain that paleontologists, like all scientists, must be good at making **observations** and **describing** what they notice. Review that terminology if necessary, then using pictures of fossils, or practical objects around the classroom, work with the students to practice making observations and describing things. This can be done as a class, groups or pairs.

Museum Visit

At the Museum, review the KW items with students before entering the Dinosaur Hall and explain the scavenger hunt activity. Give each chaperone group a worksheet to help students complete.

Post-Visit

Back in the classroom, review the KW section of the chart, then go over the answers to the scavenger hunt to complete the Learn section . Were students surprised at anything they observed? Is there knowledge they would like to correct now that they have learned more? Do they have more questions to add?

You may choose to further explore questions and concepts using one of the activities below.

Variations & Extensions

- Emphasize the importance of description. In pairs, have one student observe and describe a dinosaur fossil to their partner, who will then draw or sculpt it based on their partner's description (and doesn't get to see the picture). Compare what was observed to what was described, and talk about what students would do differently next time.

- As a team, paint or draw a mural that shows what the students learned from vising the Museum.

- Based on their observations, ask students to create a dinosaur habitat with the things a dinosaur would need to survive in it.

- Connect observations to math — ask students to observe a dinosaur foot and estimate how many of their feet it would take to fill it. Trace a life size footprint and compare their estimates with actual numbers.

Paleontological Practice

What do we **know?**	*What do we want to* **want to know?**	*What did we* **learn?**

Dinosaur Hall Scavenger Hunt

With your students, spend some time free-exploring the Dinosaur Hall and making observations. Then, use observations to help students answer the questions below:

1. Find a dinosaur with 3 horns. Tell me the name and describe its head:

2. Find a dinosaur that is smaller than a dog. Tell me its name and compare it to another animal:

3. Find an animal that is not a dinosaur. Tell me its name, and what kind of animal it is:

4. Find where it shows how dinosaurs grow. Tell me something interesting you learned about how dinosaurs grow up:

5. Find a set of footprints that show a dinosaur walking/running. Tell me how it is the same or different than how you walk:

6. Find a group of fossils that show different life stages of dinosaurs. Tell me what life stage you think you are closest to and why:

7. Find how the earth looked during the time of the dinosaurs. Tell me one way the earth is different now: