

My Favorite Dinosaur

Suggested Grade Levels: **K-4**

Description: **Students read about dinosaurs, discuss how scientists reconstruct them, then draw and describe their favorite kind.**

Standards Targeted:

- **Fossils provide evidence about living things that inhabited Earth long ago. [LS4.A]**
- **Stories sometimes give plants and animals characteristics they really do not have.**

Skills Targeted: **Observe and Communicate**

Goals:

- 1. To show how details of an ancient organism's anatomy may be inferred from its fossilized remains**
- 2. To encourage students to make close observations of anatomical features and infer aspects of behavior and biology from them**
- 3. To illustrate how dinosaurs can be used as characters in stories that do not portray their biology or behavior accurately**
- 4. To provide students opportunities to creatively express their feelings about dinosaurs**

Objectives—By the end of this activity, students will be able to:

- 1. Explain what a fossil is**
- 2. Explain that scientists infer what ancient life looked like by studying fossils**
- 3. Describe examples of stories that give animals characteristics they really do not have**
- 4. Make observations and describe details about a dinosaur's anatomy from pictures**
- 5. Communicate their observations both verbally and in drawings**

Time Needed: **30-60 minutes**

Materials:

- **Grade-appropriate books (1) describing dinosaurs as ancient animals and (2) that use dinosaurs as characters in human-like stories (e.g., dinosaurs going to school)**
- **Paper and pencils**
- **(Optional) Crayons, colored pencils, and other art supplies**



Step-By-Step Instructions:

1. Ask students what they think of when they hear the word “dinosaur”. Repeat out loud or write some of their responses on the board.
2. Explain that dinosaurs are one type of extinct animal. Extinct animals are animals that once lived on Earth but died out long ago.
3. Ask students how people know about animals like dinosaurs if we can’t see them alive today. Guide them toward the idea of fossils as the remains of ancient life that are preserved inside rocks.
4. Tell the students that the class is going to read two books about dinosaurs. Ask the students to pay attention to the different kinds of dinosaurs shown in the books.
5. Depending on grade level, students can listen as you read each book, students can take turns reading, or if copies are sufficient, each student can read on his or her own.
6. Ask students to describe the way dinosaurs were shown in the first book. For example, were the dinosaurs shown as being like reptiles, covered in scales, or like birds, with feathers? Were all the dinosaurs very large, or were small ones shown as well? Were the dinosaurs carnivores (meat-eaters), herbivores (plant-eaters), or both? How could the students tell this?
7. Show the students a picture of a fossil dinosaur specimen (*i.e.*, a skeleton) and ask them what is preserved in the fossil. Guide them toward the idea that usually only bones and teeth of dinosaurs are preserved.
8. Ask the students to think about how the scientists who study ancient life like dinosaurs (paleontologists) could know about what dinosaurs looked like when they were alive and how they lived.
9. Explain that scientists use evidence from fossils plus comparisons to living animals today to reconstruct what dinosaurs looked like and how they lived.
10. Now ask the students to think about the second book. Ask them to think of ways in which the characters in the second book were acting more like people than like real animals. Can they think of other examples in which animal characters in stories (in books, on television, in movies) act more like people than like real animals?
11. Ask the students which dinosaurs they liked better, the “real” ones in the first book or the imaginary ones in the second book, and why.
12. Now it’s time for everyone to decide – which is your favorite dinosaur? Ask the students, of all the different dinosaurs you have seen and read/heard about, which one did you like the very best?



13. Have each student draw a picture of his or her favorite dinosaur. Encourage students to pay attention to details about what their favorite dinosaur looked like. Was it big or small? Did it walk on two legs or four legs? Did it have lots of sharp teeth? Or horns on its head? Or plates on its back? Also encourage students to give their dinosaur a name.
14. Each student can then pair up with another student and “introduce” his or her favorite dinosaur to the other. Encourage students to explain why they made the choice they did—what about that dinosaur appealed to them? What is their favorite aspect of the dinosaur? Does it remind them of something else that they like?
15. Variation A: Rather than talking with a partner about their favorite dinosaur, students can be asked to write a description of their dinosaur and why they chose it as their favorite.
16. Variation B: Students can “become” their favorite dinosaur, and take turns physically acting out how their dinosaur would move, behave, and sound. Encourage students to use their bodies and any available “props” to represent specific anatomical features on their dinosaur.

Resources:

The Paleontology Portal: <http://www.paleoportal.org/>
Website with vetted educational materials, including nearly 1,000 photographs of fossils

Royal Ontario Museum Image Database: <http://images.rom.on.ca/public/>
Searchable database from the ROM in Toronto; search for “dinosaur” to bring up many good images of dinosaurs from Canada

University of California Museum of Paleontology Online Exhibits:
<http://www.ucmp.berkeley.edu/exhibits/index.php>
Extensive website with many images and background information for every major fossil group; also has extensive K-12 educational resources, online activities, modules, etc.

Some suggestions for book #1:

Bentley, Dawn, and Karen Carr (illustrator). 2004. *Dinosaur Adventures* (4-book set: *Snack Time, Tyrannosaurus Rex; Lead the Way, Velociraptor; Watch Out, Triceratops; and Surprise, Stegosaurus*). Smithsonian Dinosaurs Early Readers. Soundprints, Norwalk, CT.

Davis, Lee. 1998. *Dinosaur Dinners*. DK Publishing, New York.



Lewis Brown, Charlotte, and Phil Wilson (illustrator). 2006. *The Day the Dinosaurs Died*. HarperCollins Publishers, New York. [Note: Depicts dinosaur extinction in a fairly dramatic way—could be scary for younger children]

Note: Books older than ~1995 are likely to be out-of-date in terms of how the dinosaurs are reconstructed (e.g., discovery of feathered dinosaurs).

Some suggestions for book #2:

Yolen, Jane, and Mark Teague (illustrator). 2007. *How Do Dinosaurs Go To School?* The Blue Sky Press (Scholastic Inc.), New York.

Yolen, Jane, and Mark Teague (illustrator). 2004. *How Do Dinosaurs Clean Their Room?* The Blue Sky Press (Scholastic Inc.), New York.

and others in the *How Do Dinosaurs...?* series

