



Adaptation Sensation

1st Grade

Duration

Pre-Activity: 10 minutes

Activity: 20 minutes

Post-Activity: 10 minutes

Supplies

- Pictures of animals in their habitat
- Pictures of dinosaurs in a habitat
- Worksheet
- Pencil
- Clipboard (optional)

Standards

[NGSS](#)

1-LS1-1, 1-LS1-2, 1-LS3-1, LS1.A, LS1.B LS3.A, LS3.B, LS4.D

[S+E Practices](#)

2, 3, 4, 6, 7, 8

[CCSS ELA](#)

SL1.a.b.c, SL.5, L.5.c

[CA State](#)

Life Science 2: 2.a.d

Vocabulary

Adaptation · Habitat · Extant · Extinct · Survive
Compare · Contrast

Concepts

- Animals have adaptations that allow them to survive in their habitat.
- Adaptations can be observable.
- Scientists infer how extinct animals lived by comparing them to extant (still living) animals.

Objectives

- Students will know that dinosaurs, like any animal, were adapted for survival in their habitat.
- Students will observe extant animals and compare them to dinosaurs.
- Students will hypothesize how dinosaurs survived based on these comparisons.

Outline

1. Before the activity, guide students in a discussion of how physical adaptations help animals survive and create a T-Chart.
2. Have students use the attached packet of images to explore dinosaurs in the Dinosaur Hall and make observations using the scavenger hunt worksheet.
3. After the activity, students will reflect and review on the activity and complete the T-Chart as well as an optional synthesis activity.

Pre-Activity

Before your time with students, find a few images of animals in their habitats to share (both living - extant - animals and dinosaurs - or what paleoartists think their habitats looked like).

Teaching Note: For comparison purposes, try to find pictures of extant animals that have similar adaptations to the dinosaur pictures. Also, you may choose to include other ancient animals displayed in the attached packet, such as marine reptiles, in your 'dino' pictures.

With your students, review the concept that animals have **adaptations** that allow them to survive in their **habitat**. An adaptation is something that an animal has or does that helps them live in their home.

Show students the pictures of animals in their habitat, and have them point out characteristics and come up with ideas about how the animal might use that characteristic to survive in their home. Record ideas under the 'Animals Now' column of a Then & Now T-Chart (see example). This can be done as a class, or if there are enough pictures, in groups before sharing with the class. Remind students that animals have more than one adaptation!

Next, explain that we use knowledge of living animals to help us understand what extinct animals, like dinosaurs, used to be like. Repeat the activity above with the dinosaur pictures. As you go (or after a list has been generated) ask students to compare adaptations they saw on the living animals with those they saw on the dinosaurs. Might similar features have similar functions?

Example Then & Now T-Chart

Animals Now	Animals Then
Whales had flippers for swimming in the ocean	Marine Reptiles had flippers for swimming in the ocean
Tigers have sharp teeth for eating meat	T rex had sharp teeth for eating meat

Activity

Distribute the worksheet and attached dinosaur packet and explain that, just like they did before, in they are going to look for adaptations. Have students read the clues (or have parents help read to them), and find the adaptation the clue is looking for and name the dinosaur it belongs to.

Teaching Note: Evidence for the student's' responses to the Scavenger Hunt can be pulled from multiple dinosaurs in the attached packet and have more than one correct response.

Post-Activity

Go through the worksheet and discuss the answers students found, clarifying information or asking them to expand on ideas when necessary. Add any final observations to the T-Chart. Like before, ask students if they can think of living animals that they can compare to dinosaur adaptations, and add them to the list as well. You may choose to have students complete a culminating project demonstrating their understanding of the concept.

Variations & Extensions

- Have students sculpt or draw a dinosaur adaptation they saw in their packet and compare it to a living animal that shares one (or more) of the adaptations.
- Have students make a mural or comic strip depicting a dinosaur using at least two of their adaptations to survive.
- Give students three adaptations, then have them build an imaginary dinosaur (and its habitat) that demonstrate those adaptations. This is a great activity to use natural materials collected from outside, or scrap supplies that would otherwise be discarded.



Dinosaur Clues

Read the rhymes and find an adaptation that fits the clue! In the space provided name or describe the adaptation that solves the clue, as well as which dinosaur (or other reptile) it belongs to.

1. The first adaptation to detect, is one used to protect:

2. Next is an easy feat, find an adaptation for eating meat:

3. Now find a reptile with a limb, adapted not to walk, but swim:

4. This adaptation supports the weight, of dinos whose size was great:

6. This is it, the very last! Find TWO adaptations to run fast: