



# Astounding Adaptations

## Middle - High School Natural Selection and Adaptations

### Duration

30-45 minutes

### Location

La Brea Tar Pits Museum

### Supplies

- Worksheet
- Pencil
- Clipboard (optional)

### Standards

#### NGSS

MS/HS-LS4.C

#### S+E Practices

4, 6, 7, 8

#### CCSS

WHST.9

### Vocabulary

Adaptation · Natural Selection · Selection Pressure · Evolution · Observation · Inference · Hypothesis · Habitat

## Concepts

- Scientists infer how ancient animals survived using observational evidence from fossils.
- Pressures from the environment drive adaptation and evolution.

## Objectives

- Students will observe specimens and identify adaptations.
- Students will make inferences about how animals survived.
- Students will hypothesize about a specimen's habitat (Pleistocene Los Angeles) and how different adaptations might help specific animals survive.

## Outline

1. This lesson assumes that students know what adaptations are and how they relate to evolution. If necessary, introduce the idea of evolution by natural selection before your visit if it has not already been explored.
2. At the Museum, allow students to explore the exhibits, then focus on a single specimen to complete the worksheet.

## **Pre-Visit**

If necessary, review the concept of adaptation, and evolution by natural selection with students. At the Museum, students should be prepared to identify the adaptations of specific specimens.

## **Museum Visit**

At the Museum, students will explore the exhibits and then choose one animal to focus on for their worksheet.

# Astounding Adaptations

## Adaptations as Evidence

Adaptations tell us how animals used to live. Choose a specimen to observe closely in the Museum and write its name on the top of the Tree Map. Using your own observations, and any information available in the Museum, complete the Tree Map. First, note its adaptations and infer what those might mean for the life of the animal. Back up your inferences with evidence, i.e. what do you see that makes you say that?



