

LA Species Teacher's Guide

Feel free to use this as a tool but change anything that is needed for your students in particular. Email any questions at eschissler@oxy.edu or under the feedback section under the tab "Resources."

Day 1 of LA Species

Objectives

- Learn about where to find mountain lions and coyotes
- Learn how to identify coyotes and mountain lions
- Understand how mountain lions and coyotes contribute to the food chain
- Increase student curiosity about the world
- Learn about the wildlife that students see around them

Material needed

- LA species information guides - these guides include more information about each animal and help with answering questions
- Paper and writing material to take notes
- Worksheets found on the website - can be filled out during or after the lesson
- Mountain lion purring video linked below and under the educational videos tab
- Scissors, crayons, and coyote image
- Videos found under educational videos on websites (optional)

Recommendations

- Encourage students to take notes and draw during the lesson
- Encourage them to interject, tell them to feel free to tell stories
- Encourage kids to be curious and ask questions. If you don't know an answer to something, try to respond with something like, "let's look it up together."

Introduction

- Mountain lions are successful predators and survive due to certain behaviors.
- Coyotes are successful omnivores (eat animals and plants), and their appearance aids them in survival.
- Today we will be learning about some creatures in our very own cities that could be in our backyard.
- Starting question: What animals do you see around you? Where do you see them?

Instruction (40 minutes, 20 minutes per topic)

- Lesson 1: Mountain Lions
 - In the next 10 minutes, let's learn a little bit about our big friends, the mountain lion.
 - Does anyone know anything about the mountain lion?
 - Take some time to go over some facts about mountain lions before the first activity.
 - Identification
 - Mountain lions have many names including "catamount", "panther", "mountain screamer", "cougar", "puma", and "ghost cat".
 - They are carnivores for small mammals.
 - They have a bad sense of smell but a great vision.
 - Habitat
 - Comfortable in different habitats
 - Include mountains, forests, deserts, and wetlands.
 - Common in suburban areas of California
 - Lions can be seen at any time but are most active at dusk and dawn. A physical adaptation allows them to see at night.
 - Conservation
 - They help habitats survive and keep plants alive by eating the prey that eats the plants.
 - They are top predators meaning they control the prey population.
 - Predators are animals that eat other organisms (animals)
- Activity: Transition by telling students they are going to do a quick exercise
 - Interestingly, mountain lions don't roar like typical lions from Africa (which you might have seen in The Lion King). Let's watch this clip to see how they communicate with each other.
 - <https://www.youtube.com/watch?v=oVZCAQP6eQM> - Lower volume and watch the first 14 seconds.
 - Mountain lions purr instead of roar and are, in fact, the largest cats that can purr. Take a few movements to try and mimic a mountain lion and purr (make sure not to roar like a lion)
 - Next, mountain lions stalk their prey and ambush their prey when they have the opportunity to pounce. This means they walk on four feet instead of two like humans. Take some time to walk on all fours and how different that feels in comparison to humans.
 - (Optional) If you have time, there are other educational videos you can watch as a class about mountain lions
- Lesson 2: Coyotes

- Let's now talk about our smaller friends, the coyotes.
- Has anyone ever seen a coyote in real life or know anything about them?
- Identification
 - They are nocturnal predators but can be seen during day times.
 - They are omnivores, and for example, they eat rabbits, rodents, fish, frogs, deer, insects, snakes, and fruits.
 - Coyotes have excellent vision and a great sense of smell.
- Habitats
 - Found in North and Central America.
 - It prefers open habitats and is found in agricultural lands.
 - Can coexist with humans in suburban, agricultural or urban areas.
- Conservation
 - They thrive because they eat a lot of different food, making it easier for them to find food.
 - Coyotes eat small mammals to prevent their populations from getting too large and ruining their habitat.
 - Coyotes help control agricultural pests like rodents.
- Activity: Now that we have learned a bit about the coyote, let's draw one
 - Distribute the white silhouette coyote picture for students to color; be sure to give the kids colored pencils as well, with at least a brown, white, and black pencil, but the more colors, the better
 - <https://creazilla.com/nodes/582-walking-coyote-silhouette> - download as a vector graphic or use the third page of the worksheet.
 - For reference, this is a photo of a coyote
-https://commons.wikimedia.org/wiki/File:Coyote_in_Alaska.jpg
 - Now I will be reading a description of a coyote, and I want you to color it in to the best of your ability - give them time to color in.
 - Coyotes blend in their environment.
 - Coyotes are smaller than wolves but larger than foxes.
 - Coyotes have erect ears and a tail. Most of their body is a gray, yellow, brown, or tan color, but this can vary depending on where it lives. Their bellies are white.
 - Their fur blends in with their surroundings because of their color.
 - Their tail is half their body length and is bottle-shaped with a black tip.
 - (Optional) If you have time, there are other educational videos you can watch as a class about coyotes

Conclusions - 5 min

- Great work everyone, today we learned about how mountain lions behave to survive, such as communicating and hunting.
- We also learned how to identify a coyote and understand how they are able to blend in with their environment, which aids in survival.
- Be on the lookout for these animals and write down any time you see one.
- Does anyone have any last questions before we wrap up?

Day 2 of LA Species

Objectives

- Learn how to identify and find red-tailed hawks
- Learn about how red-tailed hawks contribute to the food chain
- Compare and contrast these animals
- Increase student curiosity about the world
- Learn about the wildlife that students see around them

Recommendations

- Encourage students to take notes and draw during the lesson
- Encourage them to interject, tell them to feel free to tell stories
- Encourage kids to be curious and ask questions. If you don't know an answer to something, try to respond with something like, "let's look it up together."

Introduction

- Red-tailed hawks are different from coyotes and mountain lions as they are birds and use different tactics.
- All of these species control small populations.
- Different traits of these animals make them unique.
- Animals are all around you, and you might not even know it. Try to pay more attention to the animals that might be lurking near you.
- Today we will continue our discussion on some species from the Los Angeles area.
- Starting question: What animals have you seen since the last time we talked? Have you seen any coyotes and mountain lions and how many?

Material needed

- LA species information guides - these guides include more information about each animal and help with answering questions
- Paper and writing material to take notes
- Access to iNaturalist
- Worksheets found on the website (optional) - can be filled out during or after the lesson
- Videos found under educational videos on websites (optional)

Instruction (40 minutes, 20 minutes per topic)

- Lesson: Red-tailed Hawks
 - "In the next ten minutes, we will be talking about our last LA species, the Red-tailed hawk."
 - Has anyone seen any big birds flying around recently?

- Identification
 - Has a brownish body with its most obvious feature: its red tail.
 - Are carnivores that use their claws for hunting prey.
 - A hawk's eyesight is 8 times as powerful as a human's and can see 100 feet high.
- Habitat
 - Can live almost anywhere, in open areas with scattered elevated places to perch, including urban parks, forests, plains, urban and suburban.
 - Can range From California to the West Indies.
 - Found in urban areas, and around open fields, especially near woodlots close to farms and cities.
- Conservation
 - Control populations of small rodents by eating them.
 - Create habitat and help farmers by eating their rodents.
- Activity: Transition by telling students they are going to do a quick exercise where they will be getting up and moving.
 - Comparing animals
 - A red-tailed hawk has a 4 ft wingspan.
 - Reach your arms out to the sides and swing them back and forth as a bird would. (Take a few minutes for the kids to try this motion)
 - This seems pretty difficult, but for birds, this is how they fly around.
 - Now recall when we walked like lions, how is this different from the red-tailed hawk?
 - Answers may be how the kids use their arm "wings" for birds but all of their legs and arms for mammals or how the motion of movement is different for each animal.
 - Can you think about some other differences between these animals?
 - Answers might include animals' size, what the animals look like, coyotes are omnivores, etc.
 - How about any similarities?
 - For example, **all help regulate the species below them.**
 - Some other answers might include predators, all seen in LA, and all are carnivores.
 - (Optional) If you have time, there are other educational videos you can watch as a class about red-tailed hawks.
- Lesson: Where to find these animals
 - What kinds of animals do you think or know live in your neighborhood?

- Answers can include species not covered in this curriculum.
 - Recall that:
 - Mountain Lions- Common in suburban areas of California, lions can be seen any time, but are most active at dusk and dawn.
 - Coyotes - Found in north and Central America. Prefers open habitats and found in agricultural lands and in suburban, agricultural, or urban areas
 - Red-tail Hawks- in open areas including urban parks, forests, plains, urban and suburban; can range From California to the West Indies; choose open areas with scattered elevated places to perch.
 - So all of the animals we talked about can be found in suburban areas of California!
- Activity: We will be doing our final activity for this unit, and it will be online!
 - Using iNaturalist, let's explore the organisms around us! (Help each student with the following steps)
 - Go to this site:
https://www.inaturalist.org/observations?place_id=14&taxon_id=42051
 (coyotes should already be searched up_
 - Let kids observe how close these three species are to them and the sightings nearby the school or their home using iNaturalist
 - In the search bar type in “Coyote (*Canis latrans*),” “Mountain Lion (*Puma concolor*)” or “Red-tailed Hawk (*Buteo jamaicensis*)”
 - Zoom into the LA area of the map and, if possible, where the school is located; as you zoom in, the places of interest tab will reload where you can click a specific location.
 - The red dots will show you the recorded sightings of the animals you searched.
 - If you are having trouble at the bottom of
<https://www.inaturalist.org/pages/video+tutorials#explore>, there is a video called “Exploring Observations with iNaturalist” with a walkthrough of how to navigate iNaturalist.
 - For each organism, count how many dots there are nearby where you live. Each dot indicates the organism we search for!
 - Once every student has done this, have them compare their findings.
 - If kids have any other organisms they want to search feel free to let them play with the website.
- Were you surprised to see that many animals around you?

Conclusions - 5 min

- Today we learned that there are many different types of animals that can be found in an environment.
- Even though species may differ from one another, they still have an important role in their environment.
- Many species are around us, and we don't even notice them.
- Continue to explore and look for these animals as we move on through this unit, and feel free to report back any sighting or discoveries.
- Does anyone have any last questions before we wrap up?
- Look forward to the next unit where we continue to talk about animal species!

If you want to learn more, please reference the supplemental and website document at the bottom of the "Curriculum" pages.

References will be under the references tab on the website.