

What is in a Desert?

**A Kindergarten Field Trip to
Red Rock Canyon National Conservation Area
Las Vegas, Nevada**

What is in a Desert?

Overview:

Students will use a variety of senses and activities to learn about what makes a desert. Animals, plants, rocks, and cultural relationships will be explored using the Visitor Center at Red Rock Canyon National Conservation Area. Students will also use observations to describe patterns of what plants and animals need to survive.

Duration:

- 25-minute session for pre-activity
- 1 day for field trip and reflection
- 30-minute session for post-activity

Grade: Kindergarten

Next Generation Science Standards:

K-LS1-1 From Molecules to Organisms: Structures and Processes		
Students who demonstrate understanding can: K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive. [Clarification Statement: Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and, that all living things need water.]		
The performance expectation above was developed using the following elements from the NRC document <i>A Framework for K-12 Science Education</i> :		
Science and Engineering Practices Analyzing and Interpreting Data Analyzing data in K-2 builds on prior experiences and progresses to collecting, recording, and sharing observations. <ul style="list-style-type: none">Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. ----- Connections to Nature of Science Scientific Knowledge is Based on Empirical Evidence <ul style="list-style-type: none">Scientists look for patterns and order when making observations about the world.	Disciplinary Core Ideas LS1.C: Organization for Matter and Energy Flow in Organisms <ul style="list-style-type: none">All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.	Crosscutting Concepts Patterns <ul style="list-style-type: none">Patterns in the natural and human designed world can be observed and used as evidence.

Field Trip Theme:

Red Rock Canyon National Conservation Area offers a great opportunity to see the diverse collection of plants, animals, and rocks found in the Mojave Desert. During this field trip, students will use their senses and make observations on the plants, animals, and rocks of Red Rock Canyon.

Objectives:

Students will:

- identify at least two desert animals.
- identify at least two desert plants.
- identify at least two types of rocks.
- use their senses to explore the elements that make up a desert.
- describe various ways that desert animals find what they need to survive in the desert.
- use observations to describe patterns of what plants and animals need to survive.

Background Information:

Although at first glance the Mojave Desert may seem an unlikely place for animals and plants to thrive or even exist, it actually contains sizeable populations of a diverse number of species. Because desert species have adapted to their environment, these are the habitats in which they thrive.

As humans we depend on all of our structures to perform a particular function. This program integrates making observations to discover and learn about the natural world in which they live and how and animals that have special structures and functions (like the spines of a Cholla protecting its water supply).

Activities include searches for the plants and animals that are distinctive to Red Rock Canyon and/or the Mojave Desert. This will all take place inside the Visitor Center Area and outside in the Discovery Plaza Outside Exhibit area.

Vocabulary:

- Burrow: a hole in the ground made by an animal
- Carnivore: an animal that eats only other animals.
- Desert: an area of land that receives very little rain fall
- Habitat/home: the place or environment where an organism lives and grows.
- Herbivore: an animal that eats only plants.
- Omnivore: an animal that eats both other animals and plants.

Materials:

- Teacher resource pages (project these images from your computer or transfer them into a powerpoint presentation to retain the colored graphics)
- Student field experience journal copied for each student
- scissors
- glue sticks

Suggested Pre-Activity: Introduce the field trip to Red Rock Canyon National Conservation Area by completing the activity using the following link to expose the students to the animals of Red Rock Canyon:

<https://www.blm.gov/sites/blm.gov/files/uploads/Nevada-Red%20Rock%20Canyon-Plants%20and%20Animals.pdf>

Field Trip Summary:

Plants and animals play an important role at Red Rock Canyon. During this field trip, students will:

- use senses to observe specimen of some of the plants and animals of Red Rock Canyon.
- explore the exhibits in the Discovery Plaza Outdoor Museum to find examples of plants and animals.
- discuss that plants need water and light to grow.
- discuss that animals need food and water to live and grow.

After coming back from the field trip, have students fill out the reflection sheet from the Student Field Experience Journal.

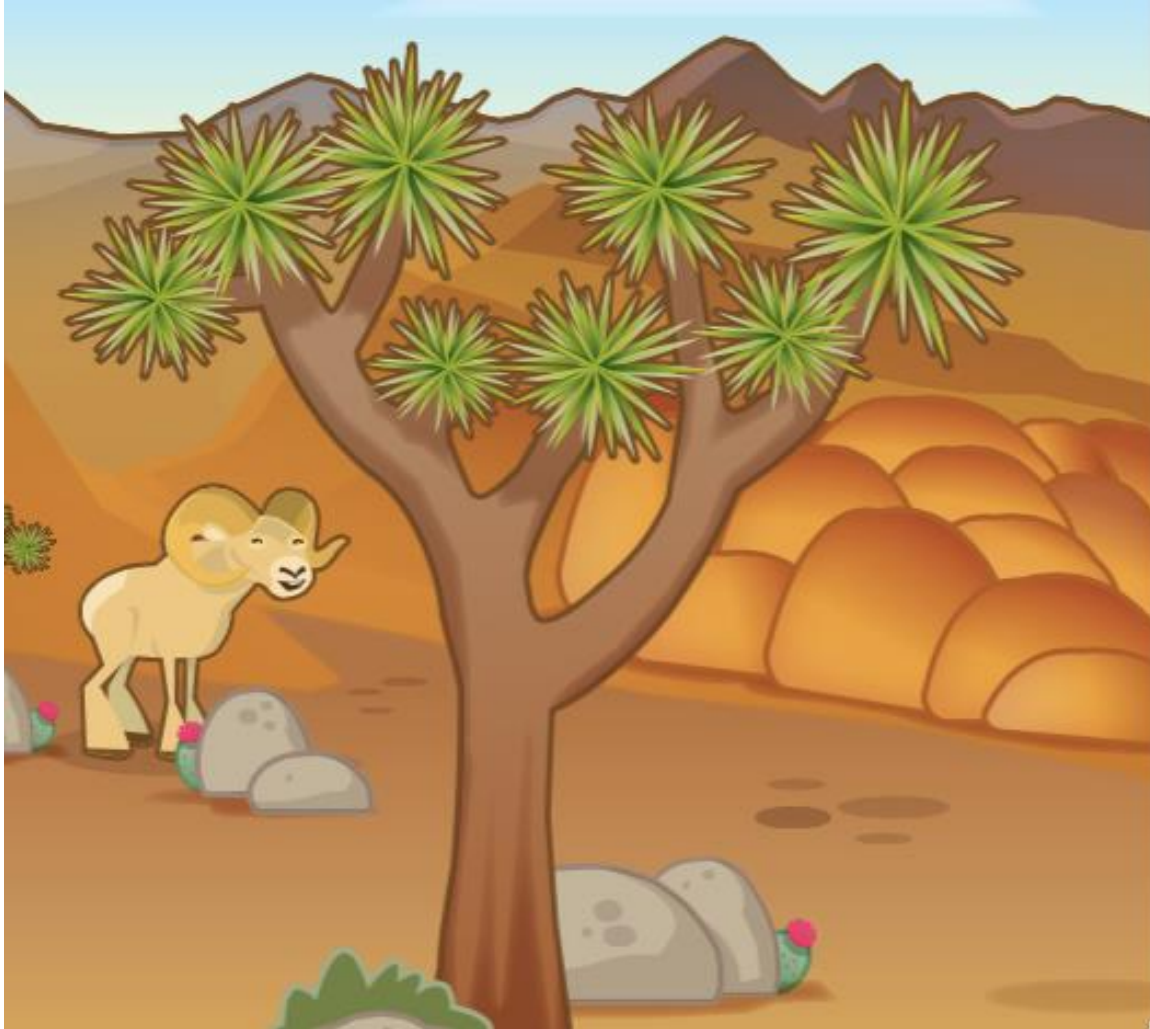
Suggested Post-Activity:

1. Show pictures of the plants and animals that were discussed during the field trip.
2. Have students draw pictures or add to the sentence frames to reflect on their learning on page 4 of the student field experience journal.

Teacher Resources

Show the students the following drawings and read the captions.

Bighorn Sheep



These powerful mammals are herbivores and like to dine on grasses, leaves, and other plants. They use their large horns to fight each other and establish rank in their herds.

Coyote



The coyote is one of the most recognizable mammals of the desert. They are omnivores and like to dine on small mammals, seeds, berries, and leafy plant material. Coyotes are often heard howling, letting other coyotes know that they are not welcome. They also bark to protect their den.

Kit Fox



Kit foxes have good eyesight and hearing to hunt in the early morning and night. They are carnivores that dine on rodents, cottontails, and black-tailed jackrabbits. They get water from the food that they eat.

Desert Tortoise



The desert tortoise is able to live in the desert by staying out of the hot sun, conserving water, and staying inactive, to not waste energy. Tortoises spend 95 percent of their time in a burrow, which also protects them from predators like coyotes and hawks. The desert tortoise is an herbivore and feeds on cacti, succulents and foliage.

Red-tailed Hawk









The red-tailed hawk is one of the largest hawks and only weighs a few pounds. It can often be seen circling high in the air where you can see its red tail feathers. It is a carnivore that feeds on small mammals.







White-tailed Antelope Ground Squirrel



Often mistaken for chipmunks, ground squirrels are omnivores eating seeds, grasses, plants, and small animals such as insects. When they cannot find water in the desert, squirrels use moisture from their food to survive.

Give each student one array to cut out and glue to their Student field experience journal to complete the sentences about what animals need to live and grow.

		
Bighorn Sheep	Coyote	Kit Fox
		
Desert Tortoise	Red-tailed Hawk	White-tailed Antelope Squirrel

		
Bighorn Sheep	Coyote	Kit Fox
		
Desert Tortoise	Red-tailed Hawk	White-tailed Antelope Squirrel

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Student Field Experience Journal

Red Rock Canyon National Conservation Area

Las Vegas, Nevada

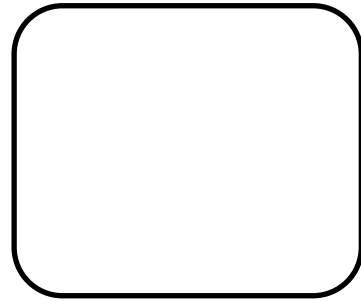
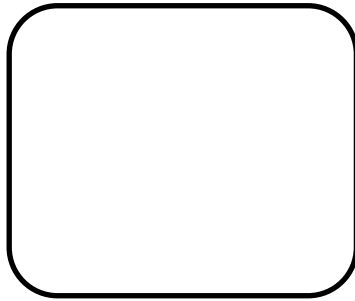
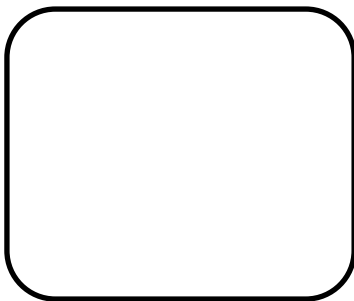
Name: _____

Field Trip Reflection

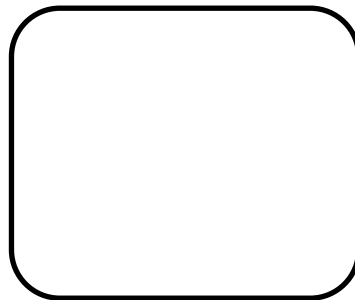
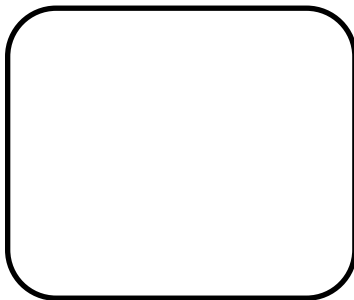
I took a field trip to _____

on _____.

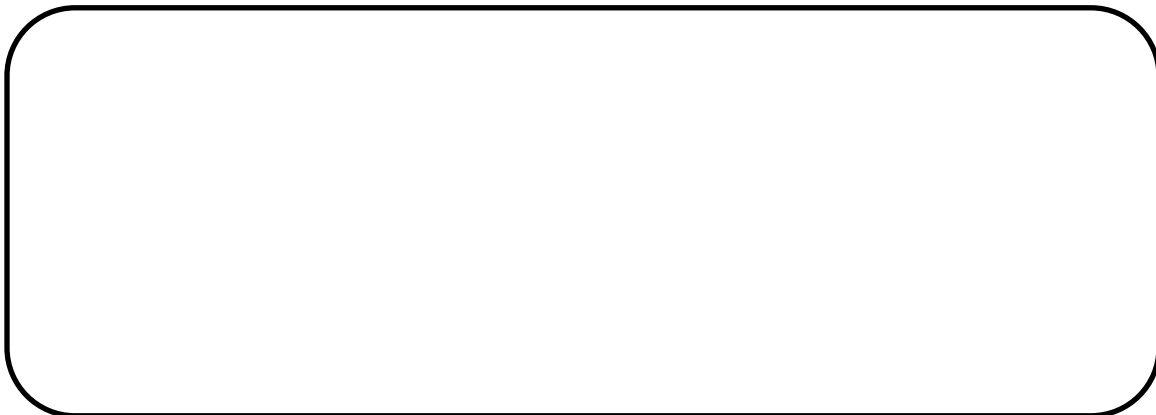
Here are three things I saw:



Here are two things I learned:



The best part of the day was:



What Do Plants Need to Live and Grow?


Complete the drawing by adding what plants need in order to live and grow.




All plants need _____ and _____
to live and grow.

What Do Animals Need to Live and Grow?

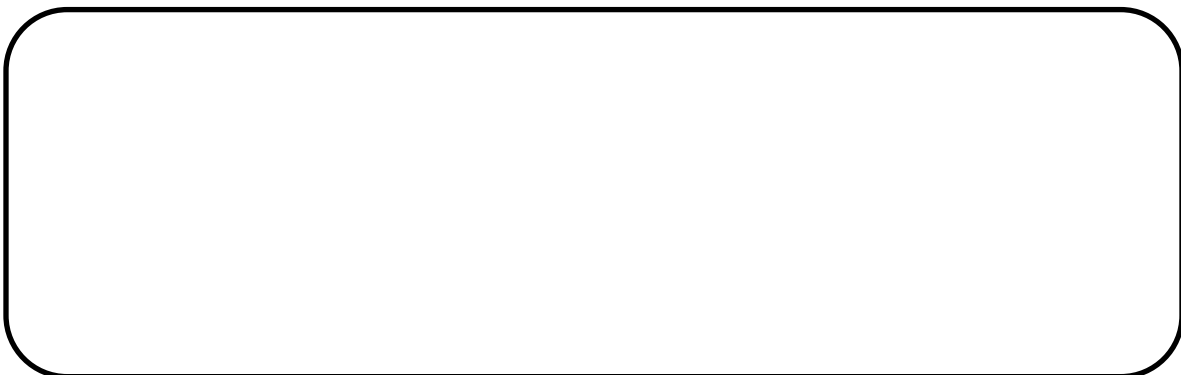
These animals eat plants and drink water:



These animals eat other animals and drink water:



These animals eat other animals and plants and drink water:



All animals need _____ and _____
to live and grow.