Wonderful Desert!
Grade level K-1

Wonderful Desert!

NGSS Alignment
K-ESS3-1

Core Concept
The Living Desert is located in the lower Colorado Desert. What is a desert? A desert is an arid environment where extreme weather is experienced. What kinds of creatures inhabit our specific desert?

Curriculum Objective
Students will recognize the elements of a desert to create a desert landscape for the animals that call the Coachella Valley their home.

Materials
For the teacher:
● Copies of Information Sheet A, B, and C

For the students:
● Worksheets
● Pencils
● Construction paper
● Coloring supplies
● Scissors
● Glue

Instructor Guide

Curriculum Outline

Instructor Guide 2
Sight Words 3
Wonderful Desert! 4
Information sheet regarding our Coachella Valley desert.
Animals of the Desert 5-6
Information sheet regarding animals in our desert.
Animal Matching 7-9
Students will be able to apply what they learned about desert animals by matching their diet, habitat, and movement to the correct animal!

Desert Landscape 10-11
After getting to know about the elements of a desert, students can create their own desert landscape!

Writing Practice 12-13
In this post-visit activity, students will have a chance to reflect on an animal that they encountered through art and sentence framing.

Sight Word Practice 14
Desert Animal Practice 15

At the Zoo:
Encourage observation! Tell the students to keep an eye out for the elements that were discussed in the classroom. What can they recognize?
Instructor Guide

Pre-Lesson Preparation

**Step 1:** Read over the provided information pages.
- The information pages are an Instructor Resource, not meant for the students to read. These can be used as a guide when presenting the slides.

**Step 2:** Prior to the presentation, introduce the students to the sight words related to the content! This will allow them to get to know some of the words that will be mentioned. For your convenience, the sight words are also on the slides provided.

**Step 3:** As a class, go through the slide presentation. In the slides, you will find pictures of the animals being talked about in the activities along with pictures of the Coachella Valley desert. While showing the slides, the instructor can follow along with the information pages and give students information about what they are seeing.

**Tip:** The emphasis of this lesson is for students to be able to recognize desert elements, so make sure to show the slides.

Animal Matching Activity

To complete this activity, students will require information about certain animal’s diet, habitat, and movement. This information can be found in the curriculum slide presentation.

**Step 1:** Hand out the Animal Matching Activity worksheet (page 7) and cutouts page (page 6) to the students. The students will need the cutouts in order to complete the activity.

**Step 2:** Allow time for the activity to be completed. Review the answers together as a class. The answer key can be found on page 8.
**Required materials:** Worksheets, scissors, and glue.

Desert Landscape Activity

Instructions for this activity are on page 9.
**Required materials:** Construction paper, coloring supplies, scissors, glue, and cutouts (page 10).

Writing Practice

In this post-visit activity, students will have a chance to reflect on an animal that they encountered through art and sentence framing. This activity can be found on page 12.

Sight Words & Desert Animal Practice

Tools that can be used to practice writing the sight words introduced as well as some desert animal names. These writing practice resources can be found on pages 14-15.
Wonderful Desert!

Related Sight Words

The following are sight words related to the material that can be introduced to students! With practice, students will be able to identify these words.

<table>
<thead>
<tr>
<th>desert</th>
<th>dry</th>
<th>arid</th>
</tr>
</thead>
<tbody>
<tr>
<td>zoo</td>
<td>sand</td>
<td>hot</td>
</tr>
<tr>
<td>water</td>
<td>dust</td>
<td>sun</td>
</tr>
<tr>
<td>life</td>
<td>plant</td>
<td>rain</td>
</tr>
</tbody>
</table>
Wonderful Desert!

Information Sheet A

The Living Desert is located in the lower Colorado Desert!

What is a desert?

A hot desert has the following characteristics:
- Very dry or **arid** environment
- Absence of water; low precipitation
- Dusty; Prone to sand and dust storms
- Extreme weather

**Glossary**

1. **Arid**: Extremely dry, having insufficient rainfall to support agriculture.
2. **Aquifer**: A body of rock and/or sediment that holds groundwater.
3. **Reservoir**: A supply or source of something.

**Fun Fact:**

The Coachella Valley averages less than 3 inches of rain each year!

**Ask your students:**

What are some weather patterns that you have experienced in the desert?

If it's so dry and hardly rains, where do we get our water?

The Coachella Valley gets its drinking and domestic water from **aquifers**. Our aquifers are natural groundwater basins that are located directly beneath us!

Water collected from the aquifers are put into **reservoirs**. There are 63 reservoirs in the Coachella Valley! Once collected, the Coachella Valley Water District tests and regulates our water to make sure it is safe for use and consumption.

**Fun Fact:**

Collectively, the reservoirs can hold up to 143.2 million gallons of water per day!

**Ask your students:**

Even though we can store a lot of water, is our supply unlimited? How can we save water at home?
Animals of the Desert
Information Sheet B

The Living Desert is home to over 150 species of animals!

What kinds of animals can be found naturally in our desert?

1. **Desert Bighorn Sheep**
   - Bighorn sheep are large mammals. They are a part of the cow and goat family. They are herbivores. They graze on grass and other vegetation they may come across. Big horn sheep are great climbers, their cloven hooves allow them to navigate through the rocky mountain terrain they call home.

2. **Burrowing Owl**
   - Burrowing owls are one of the smallest owls in the owl family. They are carnivores. Their diet consists of reptiles, small birds, insects, and rodents. Burrowing owls nest in below-ground habitats such as burrows.

   **Fun Fact:**
   - Burrowing owls are diurnal! This means they are most active during the daytime unlike other owls who are nocturnal.

3. **Fringe-Toed Lizard**
   - Fringe-toed lizards have scaly hind toes that allow them to keep them from sinking into the sand as they run away from predators. They are insectivores. Their diet consists of arthropods as well as flowers and foliage. Fringe-toed lizards live amongst fine wind-blown sand dunes and washes.

4. **Desert Tortoise**
   - Desert tortoises are herbivores. They build up most of their fat and water reserves by eating spring wildflowers, grasses and succulent green plants. Desert tortoises stay cool by finding their habitat in underground burrows.
Animals of the Desert
Information Sheet B

5 Desert Cottontail
Desert cottontails are herbivores. Their diet consists of mainly grass but they also eat leaves, fallen fruit, twigs, and pads of prickly pear. Desert cottontails do not dig their own burrows, instead, they inhabit abandoned burrows of other animals.

Fun Fact:
When fleeing from danger, desert cottontails hop away in a zig-zag pattern!

6 Greater Roadrunner
Roadrunners can run up to 20 mph! They are omnivores. Their diet consists of small reptiles and mammals, insects, arachnids, seeds, fruit, and eggs! Roadrunners like to nest in very specific vegetation such as mesquite trees and cholla cactus.

7 Western Diamondback Rattlesnake
Western Diamondback rattlesnakes are carnivores. Their diet consists of small animals such as rabbits, birds, rats, lizards, and more. This rattlesnake is not picky about where it chooses its habitat. Examples of its habitat include desert shrubbery and rocks.

8 Gamble’s Quail
Quails are omnivorous. Their diet consists of seeds, leaves, berries, small insects, and more. Quails live in desert regions with slightly more rainfall and diverse vegetation.
Animal Matching

Cut out the elements and glue them onto the correct corresponding animal and box!
### Wonderful Desert!

**Animal Matching**

<table>
<thead>
<tr>
<th>Diet</th>
<th>Habitat</th>
<th>Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image 1]</td>
<td>![Image 1]</td>
<td>![Image 1]</td>
</tr>
<tr>
<td>![Image 2]</td>
<td>![Image 2]</td>
<td>![Image 2]</td>
</tr>
<tr>
<td>![Image 3]</td>
<td>![Image 3]</td>
<td>![Image 3]</td>
</tr>
</tbody>
</table>
**Wonderful Desert!**

**Animal Matching**

<table>
<thead>
<tr>
<th></th>
<th><strong>Diet</strong></th>
<th><strong>Habitat</strong></th>
<th><strong>Movement</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image1" alt="Tortoise" /></td>
<td><img src="image2" alt="Grass" /></td>
<td><img src="image3" alt="Roam" /></td>
</tr>
<tr>
<td>2</td>
<td><img src="image4" alt="Elephant" /></td>
<td><img src="image5" alt="Mountains" /></td>
<td><img src="image6" alt="Run" /></td>
</tr>
<tr>
<td>3</td>
<td><img src="image7" alt="Duck" /></td>
<td><img src="image8" alt="Water" /></td>
<td><img src="image9" alt="Swim" /></td>
</tr>
<tr>
<td>4</td>
<td><img src="image10" alt="Rat" /></td>
<td><img src="image11" alt="Trees" /></td>
<td><img src="image12" alt="Jump" /></td>
</tr>
</tbody>
</table>

**Answer Key:**

- 1
- 2
- 3
- 4
Desert Landscape

Arts & Crafts Activity

In this activity, students will practice applying and identifying different elements and components of a desert environment.

Instructions

1. Gather materials. Each student will need a piece of construction paper, coloring supplies, a pair of scissors, glue, and the page of cutouts.

2. Encourage students to draw a desert background first. Elements could include the sky, clouds, sand dunes, etc.

3. As they are finishing their background, encourage students to start thinking about the different elements that one may find in a hot desert such as plants, foliage, animals, etc. The cutouts serve as a tool to facilitate idea generation when thinking about the elements.

As they are creating, have the students consider...

- What are some elements that would NOT be found in a hot desert? (Snow? Forests? Penguins?) Why wouldn’t these elements be found in a hot desert?
- Is there a place where your animals can find shelter?
- What food sources can your animals have in your landscape?
- Where can your animals get their water from? Since there aren’t many natural water sources in the desert, animals often get the water they need from the food they eat.

At the end of this activity, students will have completed a beautiful desert landscape with its accompanying elements!

Materials

1. Construction paper
2. Coloring supplies
3. Scissors
4. Glue
5. Cut outs
Wonderful Desert!

At the Living Desert I saw a...

This is how to spell it: _______________

The _______ was a(n) _______ color.

(animal) (color)
Wonderful Desert!

Sight Word Practice

- **desert**
- **dry**
- **arid**
- **zoo**
- **sand**
- **hot**

Name__________
Wonderful Desert!

Sight Word Practice

water

dust

sun

life

plant

rain

Name__________
Wonderful Desert!

Desert Animal Practice

1. The Living Desert
2. Big horn sheep
3. Burrowing owl
4. Fringe-toed lizard
5. Desert Tortoise

Name__________