Sample Pages from

Teacher Created Materials

Created *by* Teachers *for* Teachers and Students

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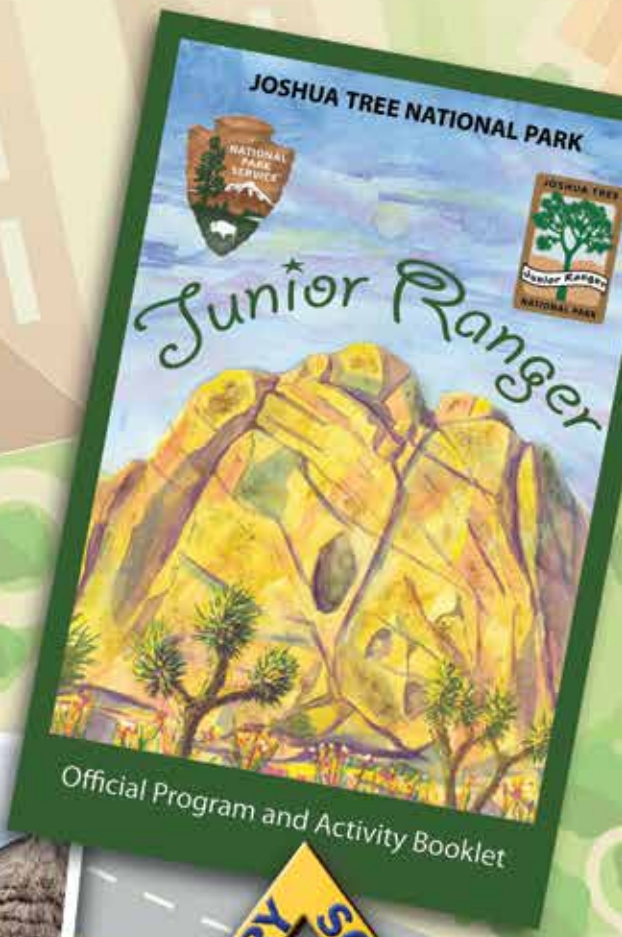
Primary Sources: Discovering Geography

This sample includes the following:

Teacher Created Materials

PRIMARY SOURCES

Discovering Geography



PRIMARY SOURCES
EXPLORING GEOGRAPHY

Table of Contents

How to Use This Product

With its authentically re-created primary source documents, captivating photographs from around the world, and easy-to-follow, concise lessons, *Exploring Geography through Primary Sources* allows the teacher and students to expand their study of geography beyond the textbook and classroom. The resources included in this kit assist the busy teacher in presenting innovative primary source lessons that meet both the National Geography Standards and the recently revised standards for the National Council for the Social Studies (NCSS 2010).

The contents of the kit provide teachers with all they need to accomplish the lessons without additional research or planning. Teachers have the photographs and documents at their fingertips without rushing to find such references. Activities are varied, interesting, challenging, and engaging.

By participating in the lessons provided in this kit, students will:

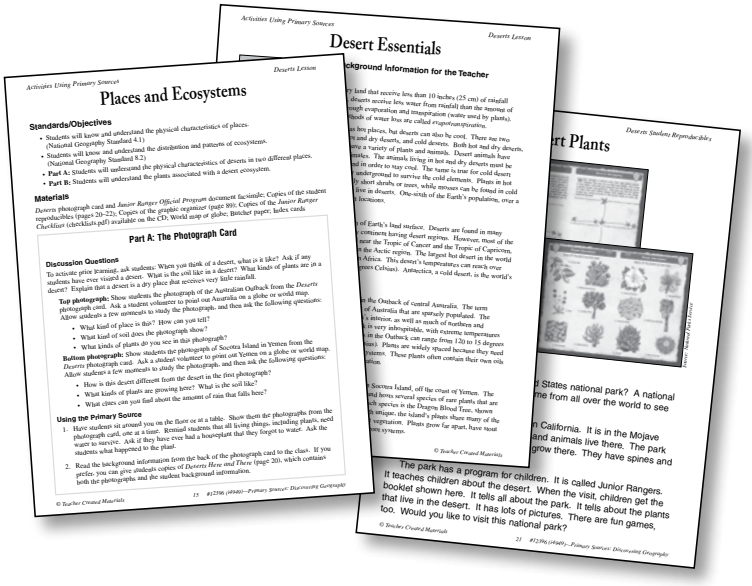
- articulate their observations.
- analyze what they see.
- improve their vocabularies.
- be prompted by visual clues.
- compare their assumptions against others.
- expand their appreciation for other time periods.

By presenting the lessons in this book, teachers will:

- improve students' test scores and test-taking skills.
- meet curriculum standards.
- create a learning environment that extends beyond the classroom.
- encourage students to take an active role in learning geography.
- develop critical-thinking skills in students.

Teacher's Guide

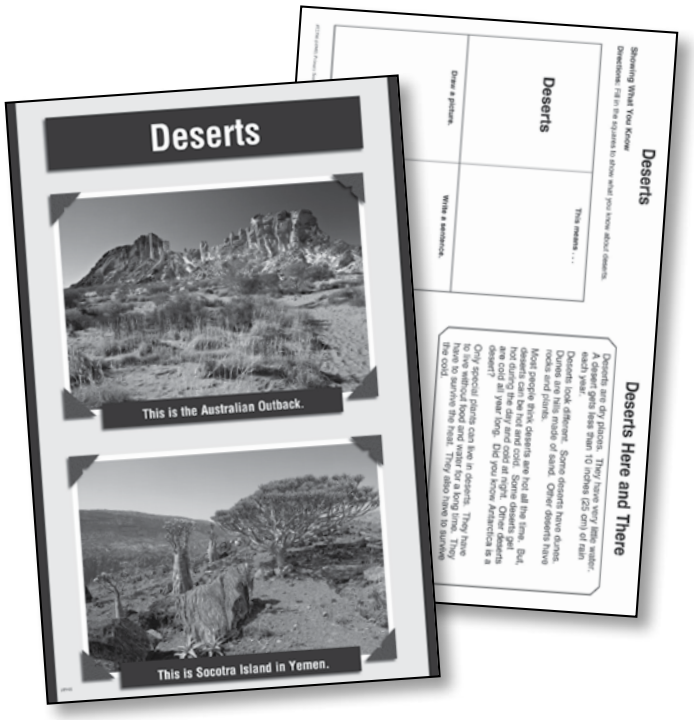
Included in the teacher's guide are eight lessons. Each lesson focuses on two photographs and one primary source document. Also included are six document-based assessments. Each lesson plan includes:



- standards and objectives
- materials list
- discussion questions
- geographic background information for teachers
- content-area connections
- read-aloud title suggestions
- home-school connection letter
- leveled geographic background information for students

How to Use This Product *(cont.)*

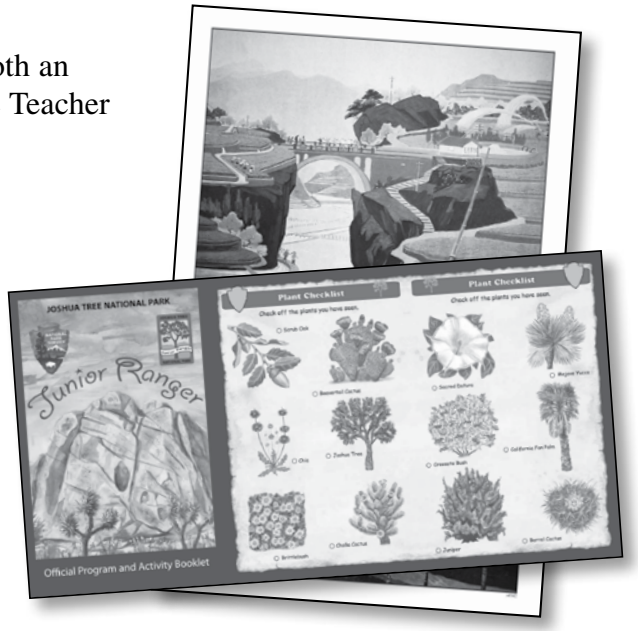
Photograph Cards



Each photograph card provides two captivating images along with captions. The backs of the cards include a graphic organizer, leveled geographic background information for students, and a geography challenge. The lesson plans do not refer to each of the sections on the back of the photograph card. These activities can be used by teachers in a way that best suits the classroom needs (group work, individual work, learning center, etc.). Each photograph card includes:

- two primary source images
- graphic organizer (note: copies of the graphic organizers are included in the appendix in this Teacher's Guide)
- leveled geographic background information for students
- geography challenge with a fun extension idea for students

Primary Source Documents



Facsimiles of primary source documents are provided in both an authentic-looking format as well as in digital format on the Teacher Resource CD. The documents come in varying sizes.

Teacher Resource CD

See pages 85–86 for more information about the files included on the CD:

- digital copies (both in PDF and JPEG formats) of all photographs and primary sources
- additional photographs and primary sources to support and enrich the lessons
- all student reproducibles
- standards chart
- detailed listing of original location of photographs and primary sources

Places and Ecosystems

Standards/Objectives

- Students will know and understand the physical characteristics of places. (National Geography Standard 4.1)
- Students will know and understand the distribution and patterns of ecosystems. (National Geography Standard 8.2)
- **Part A:** Students will understand the physical characteristics of deserts.
- **Part B:** Students will understand the plants associated with a desert ecosystem.

Materials

Deserts photograph card and *Junior Ranger Official Program* document facsimile; Copies of the student reproducibles (pages 20–22); Copies of the *Deserts* graphic organizer (page 88); Copies of the *Junior Ranger Checklist* (checklist.pdf) available on the CD; World map or globe; Paper; Index cards

Part A: The Photograph Card

Discussion Questions

To activate prior learning, ask students: When you think of a desert, what is it like? Ask if any students have ever visited a desert. What is the soil like in a desert? What kinds of plants are in a desert? Explain that a desert is a dry place that receives very little rainfall.

Top Photograph: Show students the photograph of the Australian Outback from the *Deserts* photograph card. Ask a student volunteer to point out Australia on a world map or globe. Allow students a few moments to study the photograph, and then ask the following questions:

- What kind of place is this? How can you tell?
- What kind of soil does the photograph show?
- What kinds of plants do you see in this photograph?

Bottom Photograph: Show students the photograph of Socotra Island in Yemen from the *Deserts* photograph card. Ask a student volunteer to point out Yemen on a globe or world map. Allow students a few moments to study the photograph, and then ask the following questions:

- How is this desert different from the desert in the first photograph?
- What kinds of plants are growing here? What is the soil like?
- What clues can you find about the amount of rain that falls here?

Using the Primary Source

1. Have students sit around you on the floor or at a table. Show them the photographs from the photograph card, one at a time. Remind students that all living things, including plants, need water to survive. Ask if they have ever had a houseplant that they forgot to water. Ask students what happened to the plant.

2. Read the background information from the back of the photograph card to the class. If you prefer, you can give students copies of *Deserts Here and There* (page 20), which contains both the photographs and the student background information.

Places and Ecosystems *(cont.)*

Part A: The Photograph Card *(cont.)*

Using the Primary Source *(cont.)*

3. Then, share information from the background information for the teacher, *Desert Essentials* (page 18), with students.

4. As a class, work together to create a list of adjectives that describe a desert. Remind students that adjectives are describing words like *hot, cold, big, small,* etc. Keep the list on the baord. Then, have each student choose one adjective and use it to write a sentence about a desert.

5. Next, on the board, draw a graphic organizer like the one on the back of the photograph card. Show students how to fill out the graphic organizer. Then distribute copies of the graphic organizer (page 88) to students to fill out independently.

Part B: The Facsimile

Discussion Questions

- Who do you think this program was made for?
- Why are pictures of plants included in this program?
- What do these plants have in common?

Using the Primary Source

1. Prior to students entering the classroom, print copies of the *Junior Ranger Checklist* (checklist.pdf). Cut out all the plants from *one* copy of the checklist and hide them around the classroom. The other copies will be distributed to student pairs later in the lesson.

2. Begin the lesson by asking students if they have ever visited a national park. Tell students that the National Park Service takes care of natural places around the country so that people can visit them. Explain that they give visitors brochures or programs to help them enjoy their visits.

3. Display the *Junior Ranger Official Program* document facsimile for students. Then, ask students the discussion questions listed above. Explain that this program or guide is from the Joshua Tree National Park, which is located in California. Show them where the park is located using a world map or globe. Then, distribute copies of *Desert Plants* (page 21) to students and read the information aloud.

4. Next, read off the names of the plants listed for students. Tell students that these plants are hidden around the classroom. Place students in pairs and distribute a copy of the checklist to each pair. Have the pairs find the plants on the list, checking them off as they find them. Once they have found all the plants, have the pairs pick their favorite plant and research it. Have each pair write one fact about their plants on an index card. Have each pair share their fact with the class.

Places and Ecosystems *(cont.)*

Part B: The Facsimile *(cont.)*

Using the Primary Source *(cont.)*

5. Next, ask students how they think these plants are able to survive in the harsh desert environment. Use knowledge gained from the background information for the teacher, *Desert Vegetation* (page 19), to help students fill in any gaps.

Part C: Connecting to Primary Sources

Home-School Connection

- Distribute copies of the *Deserts Home-School Connection Letter* (page 22) to students. Explain the assignment and answer any questions. Have each student fill in the date and name at the top of the letter and sign it. On the day the assignment is due, connect what the class has learned to the concept that if moisture is not added to soil through precipitation, the soil will become dry (desert).

Content-Area Connections

- **Mathematics—**Measure the amount of precipitation that your area receives. Talk about variations in the amount of precipitation over a period of a week, month, or year, and how it affects the vegetation of the location.
- **Science—**Place two potted plants, one a desert plant and one a plant from a humid climate, on a classroom windowsill. Do not water the plants, but do finish the experiment if either looks as if it is going to die. After several days, have students observe the plants. Help them understand that the desert plant can survive longer without being watered, because it has developed adaptations to help it survive in drier environments.
- **Art—**Find copies of desert paintings by the artist Georgia O'Keefe. Ask students to describe how the paintings make them feel about deserts. Then, have students paint their own desert landscape pictures.
- **Social Studies—**Locate desert regions throughout the world with the class. Then, on a world map, label the continents where deserts are found so students can clearly see them. Then, have students record the names of those deserts on their own copies of a world map.
- **Language Arts—**Have students write a travel guide for early desert explorers. The book should include what the travelers will encounter in the desert and how they will meet their needs while traveling.

Read-Aloud Titles

- *The Desert Is My Mother/El desierto es mi madre* by Pat Mora
- *I Live in the Desert/Vivo en el desierto* by Gini Holland

Desert Essentials

Photograph Background Information for the Teacher

Desert Climates

Deserts are areas of dry land that receive less than 10 inches (25 cm) of rainfall annually. Specifically, deserts receive less water from rainfall than the amount of water that they lose through evaporation and transpiration (water used by plants). Together, these two methods of water loss are called *evapotranspiration*.

People think of deserts as hot places, but deserts can also be cool. There are two main types of deserts: hot and dry deserts, and cold deserts. Both hot and dry deserts, as well as cold deserts, have a variety of plants and animals. Desert animals have adapted to the harsher climates. The animals living in hot and dry deserts must be able to burrow underground in order to stay cool. The same is true for cold-desert animals. They too burrow underground to survive the cold elements. Plants in hot and dry deserts are typically short shrubs or trees, while mosses can be found in cold deserts. Many people also live in deserts. In 2010, one-sixth of the Earth's population, over a billion people, lived in desert locations.

Desert Locations

Deserts cover about one-fifth of Earth's land surface. Deserts are found in many parts of the world. However, most of the hot and dry deserts are found near the Tropic of Cancer and the Tropic of Capricorn. Cold deserts are found in the Arctic region. The largest hot desert in the world is the Sahara Desert, located in Africa. This desert's temperatures can reach over 120 degrees Fahrenheit (55 degrees Celsius). Antarctica, a cold desert, is the world's largest desert.

The Australian Outback

The first photograph was taken in the outback of central Australia. The term *outback* is used to describe areas of Australia that are sparsely populated. The Outback covers most of Australia's interior, as well as much of northern and northwest Australia. The Outback is very inhospitable, with extreme temperatures and infrequent rain. Temperatures in the Outback can range from 15–120 degrees Fahrenheit (–10 to 50 degrees Celsius). Plants are widely spaced because they need room for their wide, shallow root systems. These plants often contain their own oils to slow down the process of evaporation.

Socotra Island Desert

The second photograph was taken on Socotra Island, off the coast of Yemen. The island is a largely untouched desert, and hosts several species of rare plants that are found nowhere else on Earth. One such species is the Dragon Blood Tree, shown on the right in the foreground of the photograph. Though unique, the island's plants share many of the same adaptations found in other desert vegetation. Plants grow far apart, have stout bodies to retain water, and have large root systems.

Desert Vegetation

Facsimile Background Information for the Teacher

Desert Plants

Most deserts are not barren sand dunes. Instead, they support a wide array of diverse life. Desert plants have developed specific adaptations for surviving with little water. Hearty exteriors defend against water loss. The spines on cactus plants, for example, prevent animals from taking water from the plant. Cacti also have a waxy outer membrane, which keeps water from evaporating. Their thick stems provide storage for the infrequent rainwater. They also have very little surface area, so that water does not evaporate through their skin as quickly. Desert plants' root systems are also well suited to the dry environment. Some spread out horizontally near the surface of the ground to gather water over a wide area after infrequent rains. Others grow deep to tap water from naturally occurring underground wells. Desert plants tend to be widely spaced, since there is enough water for only a few plants in one location. They also flower quickly after a rain so that they may immediately spread seeds.

National Parks

The first idea to preserve areas of land across the United States began in 1872 in Yellowstone National Park. This idea spread rapidly. Today, there are over 450 national parks, monuments, or other historically significant areas of the United States being protected by the government. In 1906, the Antiquities Act was established by President Theodore Roosevelt to protect land in the Western United States. Ten years later, in 1916, the National Park Service was created by President Woodrow Wilson. He established the service to protect and preserve important landforms and monuments in the United States. The National Park Service oversees national parks, cemeteries, and monuments, making sure they are preserved and protected.

Joshua Tree National Park

The Joshua Tree National Park was declared a national monument by President Franklin D. Roosevelt in 1936. Roosevelt created a proclamation that protected this part of the desert. Almost 60 years later, in 1994, the California Desert Protection Act made the area a national park. The park is located in southern California. Spanning over 800,000 acres (323,749 hectares), it houses two large deserts: the Colorado Desert and the Mojave Desert. The arid and dry Colorado Desert sits at a lower elevation, while the Mojave Desert sits higher, giving way to cooler temperatures and differing vegetation.

Desert Plants in Joshua Tree

Joshua Tree National Park hosts a variety of desert plants. The creosote bush is abundant in the eastern area. The ocotillo cactus and the cholla cactus also call this part of the park their home. These cacti need dry soil and rocky slopes to grow. The Mojave Desert's wet and cooler climate makes the perfect environment for the Joshua Trees, which are spread throughout the western half of the park.

Deserts Here and There

Source: Shutterstock, Inc.

The Australian Outback

Socotra Island, Yemen

Source: Dreamstime

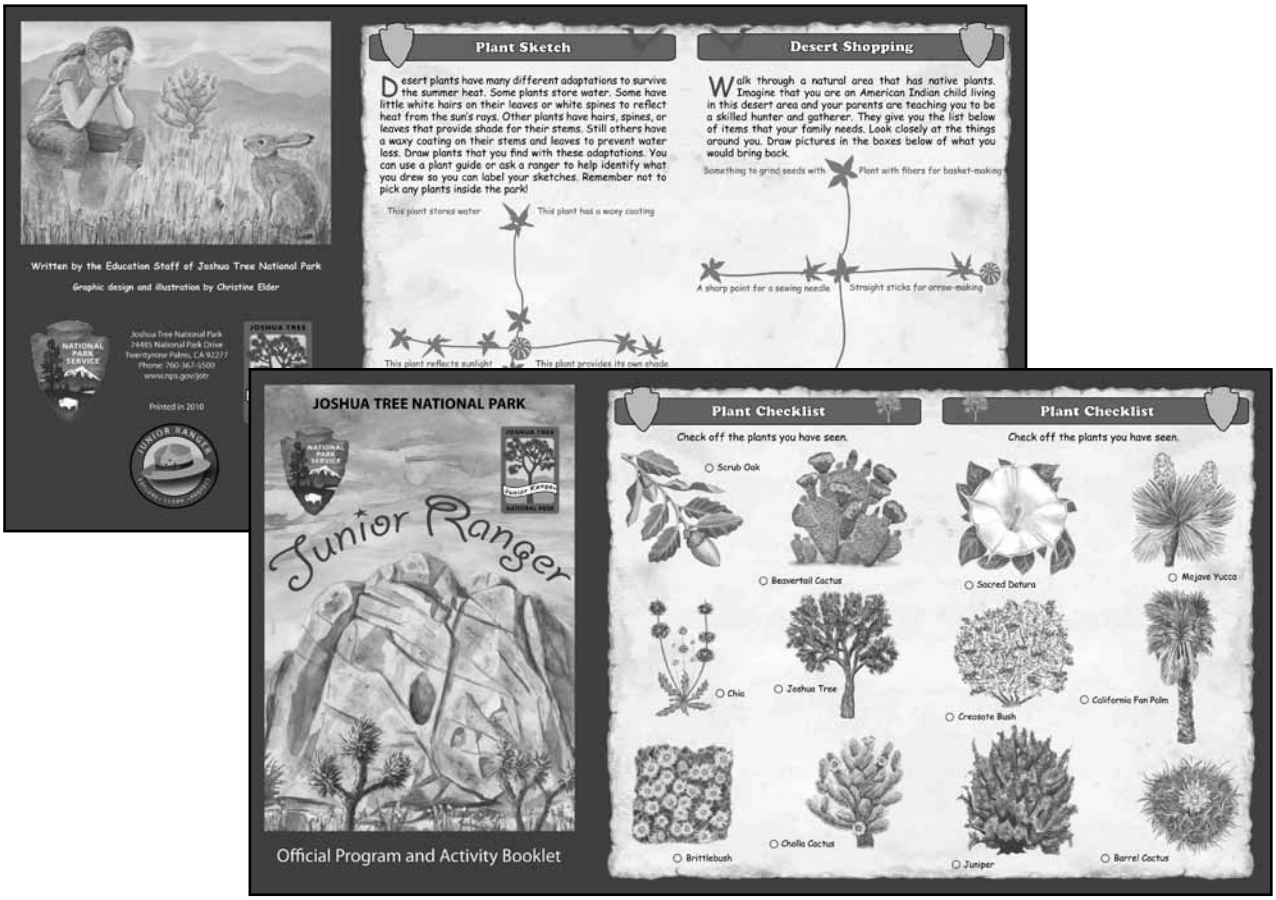
Deserts are dry places. They have very little water. A desert gets less than 10 inches (25 cm) of rain each year.

Deserts look different. Some deserts have dunes. Dunes are hills made of sand. Other deserts have rocks and plants.

Most people think that deserts are hot all the time. But, deserts can be hot and cold. Some deserts get hot during the day and cold at night. Other deserts are cold all year long. Did you know that Antarctica is a desert?

Only special plants can live in deserts. They have to live without food and water for a long time. They have to survive the heat. They also have to survive the cold.

Desert Plants



Source: National Park Service

Junior Ranger Official Program

Have you ever been to a national park in the United States? A national park is a special place. People come from all over the world to see these parks.

Joshua Tree is a national park in California. It is in the Mojave Desert. Many plants and animals live there. The park is named for the Joshua trees that grow there. They have spines and white flowers.

The park has a program for children. It is called Junior Rangers. It teaches children about the desert. When they visit, children get the booklet shown here. It tells all about the park. It tells about the plants that live in the desert. It has lots of pictures. There are fun games, too. Would you like to visit this national park?

Deserts
Home-School Connection Letter

_____
(date)

Dear _____,

I am learning about deserts at school. Deserts are places that get very little rain. Only certain kinds of plants can live there.

I would like to do an experiment to see how soil in deserts gets so dry. I will need two cups that are the same size. I would like to fill each cup with soil or dirt and add an equal amount of water to each soil sample in order to make them both very wet.

I will keep one cup inside away from the sun and set one cup outside where it will be in the sun (or safely near a heat source if it is winter time). After one day, I will examine the soil in each cup to see how moist it is. I will check them again after two days and share my results with my class.

I will share what I learn with the class on _____.

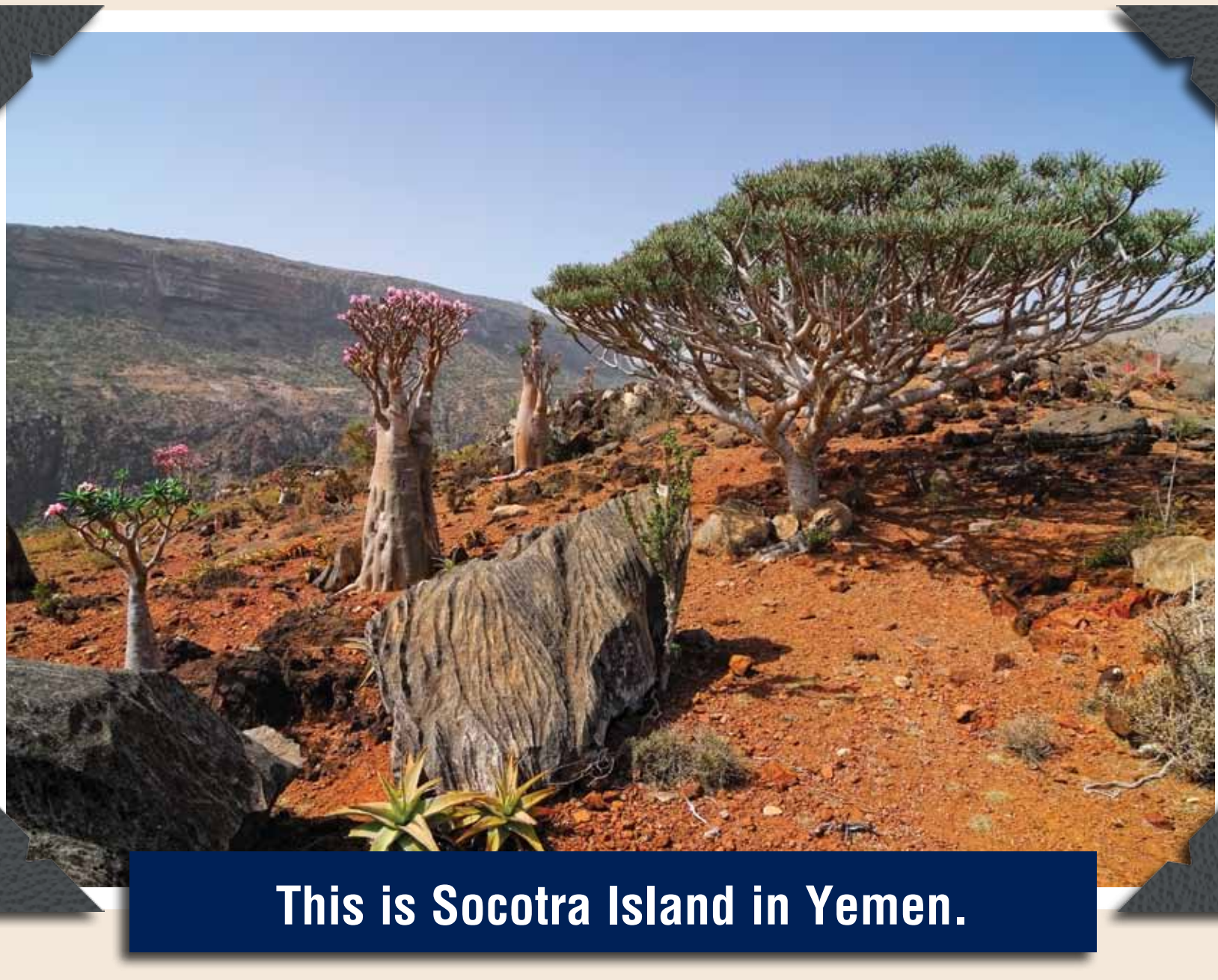
Thank you for helping me with this project.

Love,

_____

Deserts

This is the Australian Outback.



This is Socotra Island in Yemen.

Deserts

Showing What You Know

Directions: Fill in the squares below to show what you know about deserts.

Deserts	This means . . .
Draw a picture.	**Write a sentence.**

Deserts Here and There

Deserts are dry places. They have very little water. A desert gets less than 10 inches (25 cm) of rain each year.

Deserts look different. Some deserts have dunes. Dunes are hills made of sand. Other deserts have rocks and plants.

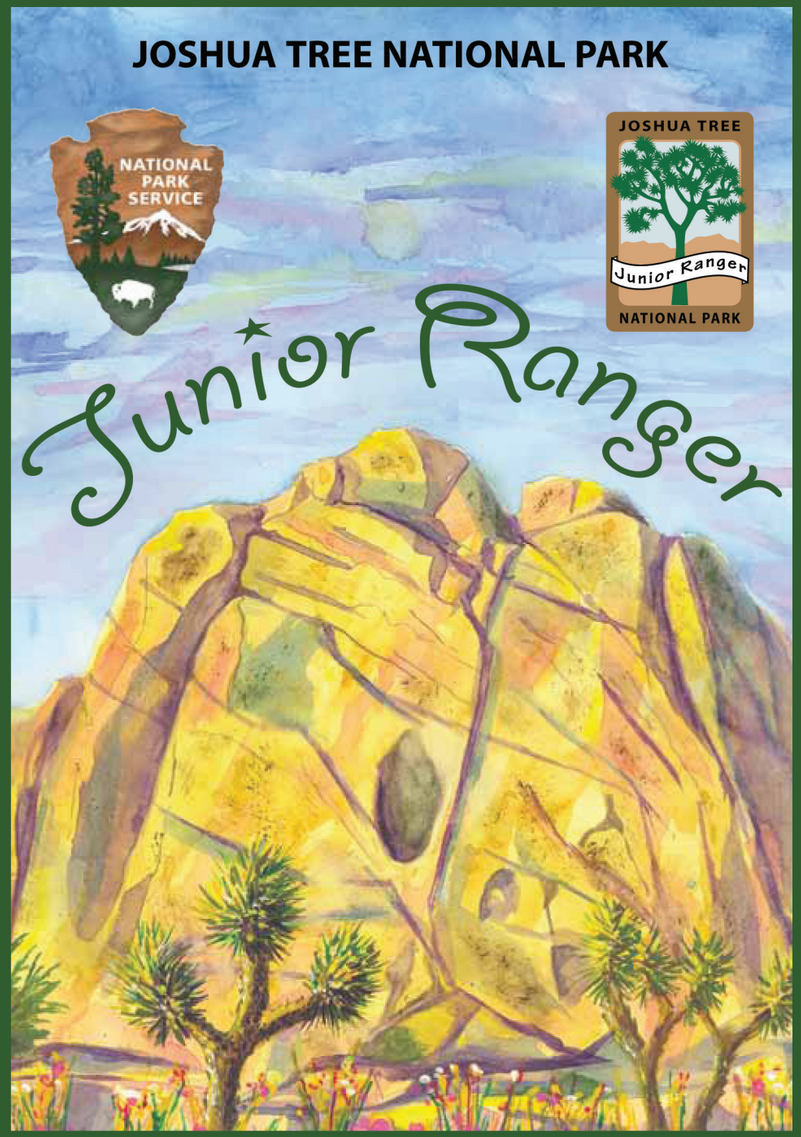
Most people think that deserts are hot all the time. But, deserts can be hot and cold. Some deserts get hot during the day and cold at night. Other deserts are cold all year long. Did you know that Antarctica is a desert?

Only special plants can live in deserts. They have to live without food and water for a long time. They have to survive the heat. They also have to survive the cold.

Geography Challenge

There is one continent in the world that has no major deserts. Can you find out which continent it is? Draw a picture of that continent. Then write a sentence about that continent.

JOSHUA TREE NATIONAL PARK



Official Program and Activity Booklet

Plant Checklist

Check off the plants you have seen.

○ Scrub Oak

○ Beavertail Cactus

○ Chia

○ Joshua Tree

○ Brittlebush

○ Cholla Cactus

Plant Checklist

Check off the plants you have seen.

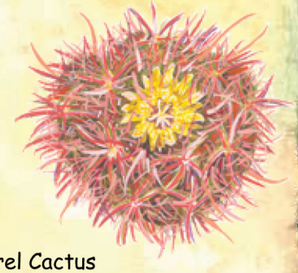
○ Sacred Datura

○ Mojave Yucca

○ Creosote Bush

○ California Fan Palm

○ Juniper



○ Barrel Cactus

Written by the Education Staff of Joshua Tree National Park

Graphic design and illustration by Christine Elder

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Plant Sketch

Desert plants have many different adaptations to survive the summer heat. Some plants store water. Some have little white hairs on their leaves or white spines to reflect heat from the sun's rays. Other plants have hairs, spines, or leaves that provide shade for their stems. Still others have a waxy coating on their stems and leaves to prevent water loss. Draw plants that you find with these adaptations. You can use a plant guide or ask a ranger to help identify what you drew so you can label your sketches. Remember not to pick any plants inside the park!

Desert Shopping

Walk through a natural area that has native plants. Imagine that you are an American Indian child living in this desert area and your parents are teaching you to be a skilled hunter and gatherer. They give you the list below of items that your family needs. Look closely at the things around you. Draw pictures in the boxes below of what you would bring back.

Plant Checklist

Check off the plants you have seen.

○ Scrub Oak

○ Beavertail Cactus

○ Chia

○ Joshua Tree

○ Brittlebush

○ Cholla Cactus

Plant Checklist

Check off the plants you have seen.

○ Sacred Datura

○ Mojave Yucca

○ Creosote Bush

○ California Fan Palm

○ Juniper

○ Barrel Cactus