

A Prickly Subject



photo by Linda Tarry

Have you ever pricked your finger on a cactus? These thorny plants grow in deserts — regions that get less than 10 inches of rainfall per year, or where water evaporates quickly. They also grow in other environments.

The Mini Page visited the Arizona-Sonora Desert Museum near Tucson, Arizona, recently and spoke with a **horticulturist*** there to learn more about cacti. (Cacti is the plural word for cactus.)

What is a cactus?

Many, but not all, cacti:

- have **spines**, or needles.
- don't have leaves.



Harsh environment

The **arid**, or dry, conditions in the desert allow about 90 percent of sunlight to reach the ground, compared to 40 percent in a **humid**, or wet, area such as a jungle. We know that ultraviolet radiation from the sun can be dangerous for human skin. But it can harm the tissues of plants and animals, too.

Plants such as cacti that live in deserts have **adapted**, or changed, to survive. For example:

- Cacti have shallow roots that can quickly take up water from rain.
- They can hold a large amount of water.
- Their spines capture less sunlight than leaves, making the plant grow more slowly.

* A **horticulturist** is a scientist who studies the growth of plants.

Spines also shade the cactus and protect it from predators.

- Their skin may have a waxy surface that protects them from the sun's radiation.

Showing off

The cacti you probably think of most are called **saguaro**s (sah-WAH-rohs). They are tall, straight plants that look like they have arms. Saguaro grow only in the Sonoran Desert of southern Arizona and northern Mexico. They can grow to 60 feet tall, but they don't begin producing branches, or arms, until they're 50 to 70 years old!



photo courtesy NPS

Saguaro cacti

Cacti produce flowers of many different colors, including white, yellow and bright pink. The small, fuzzy bumps you see on a cactus's skin are called **areoles** (AIR-ee-ohls). They produce spines, flowers and branches.



photo by William Warby

Areoles

Tall cacti that look like columns have a woody skeleton on the inside that supports their height. Surrounding the skeleton is tissue that can expand and contract depending on how much water is stored. Some cacti have a pleated outer skin, or **epidermis**, that can also expand or contract to cover the tissue.

Useful plants

Cacti may look prickly, but they're important to desert animals. Bats, birds and insects collect the nectar from flowers and help **pollinate** the flowers to produce seeds. Their fruits contain seeds that are eaten by birds and mammals, including coyotes.

Woodpeckers, hawks and other birds make nests in large cacti. When the weather is extremely dry, deer, jackrabbits and bighorn sheep will eat cacti to get the water stored inside.



photo courtesy NPS

This northern flicker has made a nest in a saguaro cactus.

Native Americans have used the fruit of cacti to make wine, jelly, syrup and candies for many centuries. Prickly pear cactus pads with the spines removed can be eaten fresh, fried or grilled.



This girl uses tongs to harvest the fruit of a prickly pear cactus.

Resources



On the Web:

- 1.usa.gov/1MIkZTG
- desertmuseum.org/kids
- bit.ly/23K7Wsv

At the library:

- "Correctamundo: Prickly Pete's Guide to Desert Facts & Cactifracts" by David Lazaroff
- "Let's Explore the Desert Family Go Guide!" by Doris Evans

Try 'n' Find

Words that remind us of cacti are hidden in this puzzle. Some words are hidden backward or diagonally, and some letters are used twice. See if you can find:



ADAPT, ANIMALS, AREOLE, ARID, BIRDS, CACTUS, DESERT, EPIDERMIS, FLOWERS, FRUIT, HUMID, INSECTS, POLLINATE, PRICKLY, RAINFALL, SHALLOW, SKELETON, SPINE, SUCCULENT, SUNLIGHT.

T I U R F P R I C K L Y T S H
E N O T E L E K S L T P A D A
T L E F L O W E R S C N I R V
A L A L S Z E P I D E R M I S
N A N A U R A R E O L E L B H
I F I R T C G I N S E C T S A
L N M I C C C R D E S E R T L
L I A D A W U U D I M U H D L
O A L P C Z D N S P I N E Q O
P R S V S T H G I L N U S Y W

Cook's Corner

Cactus Fruit Sorbet

You'll need:

- 2 1/2 pounds prickly pear fruit (about 7-9 fruits), skinned and chopped
- 1/2 cup sugar

Find prickly pear fruit at Hispanic markets or grocery stores.

- 1/2 cup water
- Pinch of salt
- 2 tablespoons lemon juice



What to do:

1. Place cactus fruits in a blender and pulse until smooth.
2. Combine sugar, water and salt in a small saucepan to make a simple syrup. Warm mixture over medium heat until sugar is dissolved.
3. Add simple syrup and lemon juice to fruit and blend until smooth.
4. Pour mixture into a bowl through a sieve. Chill at least 4 hours or overnight.
5. Freeze using an ice cream machine according to manufacturer's instructions. Let set completely in freezer. Makes 3 cups.

* You'll need an adult's help with this recipe.

7 Little Words for Kids

Use the letters in the boxes to make a word with the same meaning as the clue. The numbers in parentheses represent the number of letters in the solution. Each letter combination can be used only once, but all letter combinations will be necessary to complete the puzzle.

1. valuable metal (4) _____
2. it circles the Earth (4) _____
3. shake in the cold (6) _____
4. large bear (7) _____
5. jumping insect (11) _____
6. cookie man (11) _____
7. the color of mud (5) _____

SSHO	GO	SHIV	ERB
LD	MO	LY	ON
GRA	READ	ER	WN
BRO	GING	GRIZZ	PPER

Answers: gold, moon, shiver, grizzly, grasshopper, gingerbread, brown.



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Mini Jokes



Sandra: What eye gets hit the most?
Saul: The bull's-eye!

Eco Note



Cacti conserve water from scarce rains in the desert. You can catch water, too. Make a rain barrel to catch rainwater. Use a large plastic trash can or a wooden barrel. Then use the water you collect to water your lawn or garden, or to wash your parents' car. Check here for help: rainbarrelguide.com

adapted with permission from "The New 50 Simple Things Kids Can Do to Save the Earth" by The Earthworks Group, Andrews McMeel Publishing (andrewsmcmeel.com)

Thank You



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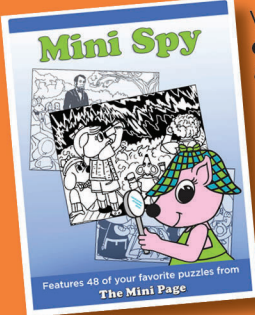
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