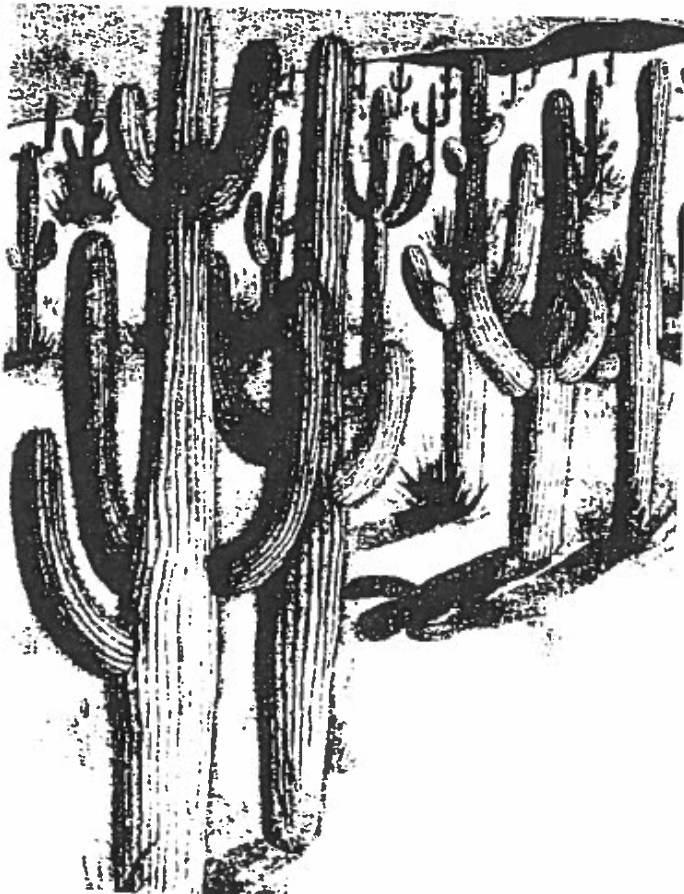


DESERT GIANT, THE WORLD OF THE SAGUARO CACTUS

by Barbara Bash

This is an article about a special kind of cactus and how useful it is for the desert.



A strange and wonderful tree grows in the desert. It is called a saguaro (sa-WAHR-o) cactus. There are many unusual shapes in the saguaro world. Walking out among them, you might feel as though you're surrounded by people—the Saguaro People.

The saguaro grows in the Sonoran Desert, through parts of Arizona, California, and Mexico. This cactus can grow as tall as fifty feet, weigh up to several tons, and live for two hundred years.

The saguaro's sharp spines protect it from harm. The accordion-like folds in its skin expand in the rain and store extra water for the long dry times.

Saguaro Homes

The holes you see in the saguaro trunk are made by the "carpenter bird"-the Gila (HEE-la) woodpecker. In the spring, the male pecks deeply into the soft flesh of the cactus to make a room for his mate's eggs to hatch.

When the Gila woodpecker moves out of its nest, the elf owl moves in. This is the tiniest owl in the world, measuring just five inches long. The elf owl hunts for small insects, centipedes, and scorpions at night and sleeps in the nest during the day. Because of the thick lining and the moisture stored in the saguaro's flesh, the nest stays cool even on the hottest days.

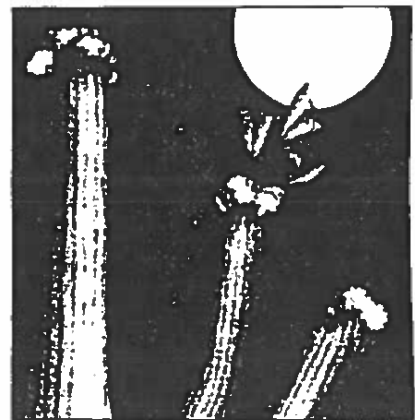


Harris hawks are the largest birds to make their homes in the saguaro. They raise their young in nests of twigs lined with leaves and grasses. Sometimes the hawks use each other as perches. As many as three birds have been seen stacked on top of a saguaro! This is called Back Standing.

Saguaro Flowers

It is May, time for the saguaro to blossom. Out of the top of the cactus, high above the ground, the buds appear and open into large, milky-white flowers with yellow centers. Each flower opens only once, in the cool of the night, and closes by the following afternoon.

Suddenly you hear a flapping of wings. A long-nosed bat has come to drink the nectar hidden deep in the center of the flower. As the bat drinks, the pollen dust sticks to its face and the bat carries it along to the next bloom. Every creature that drinks the nectar picks up more pollen and carries it on to fertilize the next flower. When the flower is fertilized, the fruit can begin to form.





Saguaro Fruit

In June, the saguaro blossoms have dried into brown stalks, and fruit has formed from the bases. Jams, candies, and syrups can be made out of the saguaro fruit.

The curved-billed thrasher comes to eat the sweet pulp of the saguaro fruit, and harvester ants scurry around gathering the seeds. The horned lizard waits by the fallen fruit for the ants to walk by. In a flash he catches one with his long, fast, sticky tongue.

Nighttime. More fruit has dropped to the ground, and the air is cool. A coyote arrives to lick the fruit pulp out of the fallen rinds. Nearby, some javelina (hav-a-LEEN-a) pigs grunt and snort as they scoop up the sweet fruit.

Everyone loves the saguaro fruit.

The End of A Long Life

After providing food and homes for so many creatures, the saguaro eventually dies. Sometimes the soft outer flesh falls away, uncovering the saguaro ribs, which spread out like a big whisk broom. At other times, strong winds or lightning knock the saguaro to the ground, where it gradually decays.

Now a whole new set of creatures moves in to live in the saguaro

Inside, termites chew the wood. A black widow spider spins her web. The giant desert centipede searches for insects. Underneath, a cactus mouse stores seeds in its cheek pouches and a spotted night snake curls in the cool darkness.



A large beetle probes the dark tunnels in search of small insects. The stripe-tailed scorpion looks for prey in the rubble, while a giant millipede searches for rotting saguaro tissue to feed on.

New Life

While one saguaro dies, another begins its new life. Each fruit-bearing saguaro produces millions of seeds, but most are eaten before they can sprout. The seeds that do survive grow so slowly that the tiny saguaros are easily knocked over by animals or washed away by floods.

The only saguaros that have a chance of living are those that begin their growth in the shelter of a "nurse plant." The larger tree protects the young saguaro, and for many years it grows safely. Eventually the nurse plant dies, but by then the saguaro is strong enough to stand alone. After fifty years, it begins to produce flowers and fruit. After seventy-five years, the saguaro's arms start to appear When it is one hundred fifty years old, the cactus giant towers quietly over the desert.



6. Where does the saguaro cactus grow?

- ☐ In forests of the southwest
- ☐ On the shores of lakes and streams
- ☐ In parts of Arizona and California
- ☐ On the tops of the Gila mountains

7. What protects the saguaro from harm?

- ☐ The Gila woodpeckers
- ☐ The folds in its skin
- ☐ The sharp spines on its skin
- ☐ The Harris hawks

8. How does the saguaro survive when there is very little rain?

- ☐ Its arms dry up until it rains again.
- ☐ Its flowers catch water when it rains.
- ☐ Its skin has folds that store water.
- ☐ Its spines hold moisture from the air.

9. Why is the Gila woodpecker called the carpenter bird?

- ☐ It feeds on the fruit of the saguaro cactus.
- ☐ It eats the saguaro cactus after it dies.
- ☐ It joins the ribs and the flesh of the saguaro cactus together.
- ☐ It makes holes in the saguaro cactus flesh with its beak.

10. Why do Gila woodpeckers come to the saguaro cactuses?

- ☐ Gila woodpeckers make nests in them.
- ☐ Saguaro cactuses are a good source of food.
- ☐ Saguaro cactuses protect the males from storms.
- ☐ Gila woodpeckers feed on the soft flesh.

11. What do the Gila woodpeckers and elf owls have in common?

- ☐ They use a saguaro for food.
- ☐ They share a nesting place in the cactus.
- ☐ They share the saguaro fruit.
- ☐ They use the soft cactus flowers to make a nest.

12. Why do animals like to make nests in the saguaro cactus?

- ☐ The spines of the cactus are good food in the desert.
- ☐ The inside of the cactus is filled with sweet jams and syrups.
- ☐ The thick walls of the cactus help to keep the nest cool.
- ☐ The ribs of the cactus can be used to build a strong nest.

13. What does Back Standing mean in this article?

- ☐ Animals standing under a saguaro cactus catching the fruit that drops to the ground
- ☐ A nurse plant protecting a young saguaro until it is strong enough to stand alone
- ☐ Two or three Harris hawks perched on top of each other on a saguaro cactus
- ☐ People coming back to see a saguaro cactus after it has died and is no longer standing

14. In this article, where is pollen found?

- ☐ On a chair
- ☐ Near a boat
- ☐ At a movie
- ☐ In a flower

15. What job does the long-nosed bat do for the saguaro cactus?

- ☐ The bat fertilizes the flowers so that fruit can form.
- ☐ The bat cools the saguaro cactuses with its flapping wings.
- ☐ The bat goes from cactus to cactus eating insects.
- ☐ The bat protects the saguaro cactuses from other animals.

16. What does an animal do when it is scurrying?

- ☐ Jumping on something
- ☐ Building a nest
- ☐ Running fast
- ☐ Storing food

17. How is saguaro fruit helpful to people?

- ☐ The fruit can be made into many foods.
- ☐ The fruit is a good place to get pollen.
- ☐ The smell of the fruit keeps animals away.
- ☐ The pulp of the fruit brings harvester ants out.

18. The cactus provides food and homes for many creatures. Which of these means the same as provides?

- ☐ Gives
- ☐ Watches
- ☐ Listens
- ☐ Talks

19. Which part of a saguaro cactus looks like a broom?

- ☐ The arms
- ☐ The blossoms
- ☐ The ribs
- ☐ The spines

20. The saguaro cactus falls to the ground where it gradually decays. What does gradually mean?

- ☐ Little by little
- ☐ Very quickly
- ☐ Without a trace
- ☐ In a quiet way

21. Which animals are attracted to a saguaro cactus after it dies?

- ☐ Bats
- ☐ Insects
- ☐ Hawks
- ☐ Woodpeckers

22. Why is a nurse plant so important to a saguaro cactus?

- ☐ It protects the small animals that come to feed at the cactus.
- ☐ It holds extra food for small animals until the cactus fruit is ready.
- ☐ It collects and stores moisture for the giant cactus.
- ☐ It grows over a young plant and protects it while it is small.

23. What happens to a saguaro cactus after 75 years?

- ☐ Flowers and fruit start to form.
- ☐ Animals start to make homes.
- ☐ Ribs and seeds begin to grow.
- ☐ Arms begin to appear.

24. Which shows that a saguaro cactus is very old?

- ☐ The cactus produces flowers.
- ☐ The cactus has many arms.
- ☐ The cactus produces fruit.
- ☐ The cactus has many nests.

25. How do saguaro cactuses and desert animals depend on each other for life? Use information from the article and what you already know to answer the question.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

Word Analysis

This is a sample of the types of items that 3rd grade students answer in this section of the test.

DIRECTIONS:

Your teacher will read each question and you will mark your answer in the booklet. All of these questions have only one correct answer. Do not begin until your teacher gives you directions.

1. They sat in a **circle** and talked about the book.

Which word begins with the same sound as **circle**?

- ☐ (A) careful
- ☐ (B) shorten
- ☐ (C) selling
- ☐ (D) classes

2. The **graph** showed how many students liked chocolate.

Which word begins with the same sounds as **graph**?

- ☐ (A) gab
- ☐ (B) glass
- ☐ (C) gym
- ☐ (D) great

3. Which word has the same "o" sound as the letter "o" in **stop**?

- ☐ (A) son
- ☐ (B) some
- ☐ (C) noon
- ☐ (D) rock

4. What does **unable** mean?

- ☐ (A) very able
- ☐ (B) too able
- ☐ (C) not able
- ☐ (D) almost able

5. What is the root of the word **shortage**?

- ☐ (A) or
- ☐ (B) age
- ☐ (C) short
- ☐ (D) tag



