

SUPER SAGUAROS

LESSON PLAN

Created by Ranger Brennan Basler (aka “Ranger B”)
Usery Mountain Regional Park, Mesa, Arizona

PROGRAM THEME: Saguaros are very unique plants! They use a variety of amazing strategies not only to survive, but to thrive in our hot, dry, desert. Saguaros have also helped people and animals survive in our desert for thousands of years!

PROGRAM DESCRIPTION: Saguaros give our desert its character! Discover amazing things about these desert giants as you join Ranger B on this quarter-mile stroll along our scenic Desert Hawk Trail. Please bring water and closed-toe shoes. Location: Meet at the Nature Center.

TEACHING POINTS:

1. Saguaros go through a fascinating lifecycle from birth to death.
2. Pollination plays a key factor in the reproduction of saguaros. What are the pollinators of saguaros and how do they do it?
3. Saguaro babies require a nurse plant for survival.
4. Saguaros use three main strategies to survive and thrive in our desert. All three strategies involve how they use water:
5. Strategy one: Collecting water (through their roots).
6. Strategy two: Containing (storing) water in their trunk and arms.
7. Strategy three: Conserving water (spines, waxy skin, pleats, no leaves, etc.).
8. There are many myths about saguaros. Let’s bust some of them (i.e. arms for balance, drinking water from one, how old they are before they grow their first arm, etc.).
9. Saguaros have provided a source of food for humans and animals for thousands of years.
10. Saguaros provide a home for various animals that live in our desert.
11. Saguaros are a protected species and require our care and respect.

DESIRED OUTCOMES:

1. Participants will gain an understanding of the life cycle of saguaros.
2. Participants will learn how saguaros survive and thrive in a desert environment.
3. Participants will discover the symbiotic relationship between saguaros, humans, and animals.
4. Participants will develop nature-based observational skills.
5. Participants will be inspired by these desert giants and will hopefully deepen their love and respect for them.
6. Participants will build a personal connection with our Sonoran Desert by experiencing some of its many wonders.

PROGRAM OUTLINE:

1. **Welcome:** Welcome to Usery Mountain Regional Park. Introduce myself and our park volunteers. Ask for a show of hands from repeat visitors. Introduce our county park system and Usery Park, including the amenities inside our park. Highlight a few upcoming programs.

2. **Introduction:** Saguaros are amazing plants! They are the tallest cactus native to the U.S. They only live in our Sonoran Desert – none of the 24 other deserts of the world! Saguaros use fascinating strategies not only to survive, but to thrive in our desert. During this tour, we are going to discover these strategies and how saguaros have helped humans and animals for thousands of years. Hopefully we'll gain a greater appreciation for these jolly green giants! Mention our trail guidelines (the 3 “Stays”): Stay behind the ranger. Stay on the trail. Stay together.

3. **Stops:** There are several stops along the trail to highlight the teaching points noted above:
 - (a) At the first stop along the trail, we'll discuss the life cycle of the saguaro, starting with the flower (the state flower of Arizona), and how they are pollinated. After fertilization, they develop into fruit. Each fruit contains up to 3,000 little black seeds, which are the next generation of saguaros.
 - (b) At the second stop along the trail, we'll learn about nurse plants and how they provide protection to saguaro seedlings, which ultimately allows them to grow to adulthood.
 - (c) At the third stop along the trail, we'll use the woodpecker holes drilled in the saguaro to learn about some of the animals that inhabit saguaros.
 - (d) At the fourth stop along the trail, we'll point out a saguaro skeleton and how it was used as a tool for harvesting fruit – an important food source for millennia.
 - (e) At the fifth stop along the trail, we'll discuss the strategy of how saguaros “collect” water.
 - (f) At the sixth stop along the trail, we'll discuss the strategy of how saguaros “contain” water.
 - (g) At the seventh stop along the trail, we'll discuss the strategies of how saguaros “conserve” water.
 - (h) At the eighth stop along the trail, we'll bust a couple of common myths about saguaros.
 - (i) At the last stop along the trail, we'll discuss how and why saguaros are protected on public lands.

4. **Conclusion:** Today we've seen why saguaros are so unique and special! Hopefully we've been inspired by them and have deepened our love and respect for them. My encouragement to you is to keep on connecting with our desert, because the more we connect with it, the more we will grow to love and respect it. And the more we grow to love and respect it, the more we will want to protect it and save it for the future – not only for our generation but for the generations that follow us. Thank them for coming out to the program. Be available to answer any questions.

TARGET AUDIENCE: This program is adaptable to all ages, however it is designed for a mature audience.

LENGTH OF PROGRAM: 1.0 – 1.5 hours.

LOCATION OF PROGRAM: Meet at the Nature Center. From the Nature Center, we'll hop on the Desert Hawk Trail and walk the quarter-mile loop in a counter-clockwise direction.

PROPS USED: Saguaro boot, saguaro arm skeleton, saguaro seeds, saguaro walking stick, saguaro calyx, plastic pleated cup, wax paper or plastic wrap, photos of: saguaro sunset, saguaro fruit, saguaro flowers, harvesting the fruit, gila woodpecker, elf owl. Props also include stopping at specific saguaros along the trail and using them to highlight the teaching points noted above.