

CAVE CONSCIOUS

BACKGROUND INFORMATION:

Gary Tenen and Randy Tufts kept Kartchner Caverns a secret for 14 years; from its discovery in 1974 to its designation as an Arizona State Park in 1988. The discoverers knew that the cave was both unique and fragile. Like all caves, it was subject to permanent damage through unregulated visitation and intentional vandalism. This had been the unfortunate history of many southwestern caves that were unprotected. In addition, with the opening of nearby Arizona Highway 90, the cave was very accessible. Tenen and Tufts along with the Kartchner family decided that development of the cave as a park would provide the necessary protection. If the cave became public property and was protected by Arizona State Parks, it would be managed in the best possible way for it to maintain its living status and avoid vandalism. The process of arranging that status took fourteen years.

SUMMARY:

The students read "Situation Cards" which could have been or could become problems for the life of Kartchner Caverns. They then discuss the situations in detail and develop a skit which portrays the group's solution to the situation.

STEP BY STEP:

1. The teacher should copy and cut out the situation cards.
2. Divide the class into groups of three or four, and give each group a card.
3. The students read through the situation card and decide which solution they would like to support or they may develop their own solution. (15 minute time limit suggested)
4. Students need to explore both the benefits and drawbacks of each solution.

5. Each group will present a short skit to the rest of the class. All of the group members need to be involved.

Assessment:

When a group is finished with their skit have them share the solutions they did not choose and discuss why they did not choose these particular solution.

SUBJECT: Stewardship

MATERIALS: copy of situation cards, one per group of 3 to 4 students

GRADE LEVELS: 5-6

TIME: 45 minutes

OBJECTIVES: Students will be able to identify actions which are harmful to caves, discuss why these actions are so destructive, and recommend alternatives that promote stewardship of Kartchner Caverns.

CONCEPTS: Kartchner Caverns is a non-renewable natural resource that is being protected by Arizona State Parks. Individual and community lifestyle decisions have an impact upon the cave's well being.

CAVE CONSCIOUS SITUATION CARDS

1. You and a friend have found a sink hole which leads into a dark crevice. You decide to explore the hole and find yourselves in a big room with beautiful formations. You look around carefully and notice there are no other footprints, no trash, no writing or painting on the walls, no broken stalagmites or stalactites. This cave has probably never been explored by humans.

Would you:

- Tell the authorities about the cave, for examples the local sheriff or Forest Service or the caving club.
- Cover it up and never go back.
- Put a gate on the cave.
- Keep it a secret and hope nobody else finds it.
- Break off some speleothems. Return to the cave often to collect formations.
- Tell your friends about the cave and bring some of them to see it.
- Keep quiet about the cave and explore it with your friend.
- Decide to find a way to protect it permanently even if it means lots and lots of work for a long time
- Come to the cave as often as you can even after you have explored it.

OR?

2. You are a hard working person who owns some good ranching land. You have used your land wisely and are comfortable with your success. You receive a phone call from some strangers who say they want to show you something they found on your land. The strangers come to your house and show you slides of an amazing cave full of beautiful formations. You are excited about this discovery.

Would you:

- Mine the cave for its formations and sell them.
- Decide to help the strangers find a way to protect the cave.
- Agree to sell the cave to the government so it can create a park.
- Tell your friends and bring them to the cave.
- Cover the cave up to wait until you decide what to do about it.
- Close off your property to hunters, including some of your friends.
- Prosecute the strangers for trespassing.

OR?

3. You are the director of an agency that has been given the opportunity to develop a natural resource of a living cave. There are over 2 miles of trails in the cave which could be opened for public viewing. The cave is a living wet cave with beautiful and unique speleothems.

Would you:

- Open all of the rooms to the public. Widen the small entry ways so visitors can crawl easily.
 - Open the most easily accessible rooms that have spectacular formations with tunnels leading from room to room. Have air locked doors to prevent loss of moisture. Make handicap accessible trails.
 - Have wide tunnels opening up to the outside to let fresh air in and the damp musty air out.
- OR?

4. You are a spelunker and you are in a new cave. You come upon a roosting bat population on the ceiling. You notice some very small bats with no hair. This is a nursery colony.

Would you:

- Leave quickly and quietly the way you came.
 - Proceed further into the cave only shining the lights on the bats to see how many bats are in the area.
 - Try to capture a few bats to see what species is occupying the cave.
 - Make a lot of noise and flap your arms to get all of the bats to leave.
- OR?

5. The demand for cave tours is greater than expected. Right now, each visitor goes with a group that is supervised and led by a ranger. If the visitors go by themselves, lots more people could take the tour, Arizona State Parks would make more money from cave tours and more people would have an opportunity to see the cave.

Would you:

- Keep the policy the same...ranger guided tours only.
 - Make each tour group led by a ranger twice as big as planned.
 - Have rangers inside to guard the cave, but let visitors walk themselves through the cave.
 - Let everybody go through the cave without ranger supervision.
- OR?

6. Parts of the cave are closed during certain times of year so the bats can raise their young undisturbed. People are upset because they have traveled a long way to see the WHOLE cave.

Would You:

- Move the bats out. They are making a mess inside the cave, anyway.
 - Allow the visitors to see the bats, but tell them to be quiet as they go past.
 - Let some visitors go away disappointed.
 - Put up a plexiglass wall between the visitors and the bats.
- OR?

7. People get thirsty and hungry during the tour. It would be convenient for them to have vending machines in the cave or tunnels leading into the cave.

Would you:

- Put a small restaurant inside the cave. It would be a great experience to have lunch in Kartchner Caverns.
 - Put vending machines inside the cave but be sure to have lots of trash cans available.
 - Put vending machines only in the entrance tunnels so people don't throw litter inside the cave.
 - Don't allow food or drinks near the cave. People will just have to wait until they get back to the Discovery Center.
- OR?