

Teacher's Guide for APPLESEEDS: *Exploring the Grand Canyon*

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Betty Lou Askin, a retired educator who lives in Toronto Ontario prepared this guide.

Objectives:

- To gain an understanding of how a natural wonder such as the Grand Canyon developed
- To appreciate the history/geography that is revealed by the Grand Canyon
- To learn about and appreciate travel in the wilderness.

Prior Knowledge:

Ask the students to provide information that they know about the Grand Canyon. Make a list of this information. After reading and doing work with this issue, revisit the original list and add information that was learned from the experience.

The Three "R"s of Folding Time, Grand Canyon Style (pages 2-7)

- Use an Atlas of the United States to locate the Grand Canyon.
- Use the information in paragraph two on page two to help understand the size of the Canyon.

Questions for discussion-

- What do geologists agree upon about the Grand Canyon?
- Describe how the Grand Canyon walls were built.
- Explain how the following were created:
 - Limestone
 - Sandstone
 - Shale

Also, use the information found on page 28, *A Rainbow of Dirt*, to help answer this question

- Describe the evolution of the Colorado River.
- How has the Hoover Dam changed the Colorado River?
- Why do people build dams?
- Describe other ways that changed the riverbed.
- Explain how the rain affects the Canyon.

It's a Grand Place (pages 8-9)

Some ideas for using the data are the following:

1. You may wish to assign topics about the Grand Canyon so that the students can complete further research. They could then make presentations to their classmates.
2. Students could use the information provided on these pages and create posters of their own to display around the school.
3. The facts could be written on flash cards and used as a memory game.
4. Students might create a travel brochure that would encourage visitors to the Grand Canyon.

How the Havasupai Came To Be (pages 10-11)

Ideas to help with comprehension of the story:

- Describe the two gods who ruled the world.
- What hopes did Tochapa have for his daughter?
- What did Hokomata do?
- Describe how Tochapa tried to save his daughter.
- According to this creation story, how was the Grand Canyon formed?
- Describe how Tochapa's dream came true.

John Wesley Powell (pages 12-14)

Questions/Activities to consider:

- Describe John Wesley Powell's early years.
- Why do you think that Powell's war injury did not handicap him?
- What did Powell do with his collections?
- How did Powell prepare for his trip down the Colorado?
- Make a list of all the trouble that happened on the expedition.
- Why was Powell a hero?
- What do you think was Powell's most important contribution?
- **Diary/Journal-** Create a journal that Powell may have kept on his expedition. Use information that was presented in this article and your own ideas to help describe what may have happened during the trip.
- **Research-** Students may want to learn more about Powell's expeditions and contributions to the knowledge about the Grand Canyon and the Colorado River.

People of the Blue-Green Waters (pages 15-17)

During or after the reading use these prompts to focus on the content:

- Explain why Supai Village is so remote.
- Compare the top and bottom of The Canyon.
- Why is the water so colorful?
- What does the religion of the Havasu 'Baaja teach?
- Describe the Supai Village. Make drawings as well.
- Why do you think that the United States government returned some of the land to the Havasu 'Baaja in 1975?
- Make a chart listing why it would be wonderful to live at the bottom of the Grand Canyon. In a second column, list the difficulties that you would face.

Take a Hike! (pages 18-19)

Creative Work:

- Ask the students to design a travel brochure advertising a trip to the Grand Canyon. Have them include the attractions and activities, travel arrangements, food and water issues, clothing, safety, etc.

How to Be a Green Traveler (pages 20-21)

- **Think-Pair-Share:** Ask the students to pair up with another classmate. They are to read and discuss this article and its pictures. When they have completed this task, hold a class discussion about what they have read and their impressions.
- Ask the students to work again with their partner. This time they are to brainstorm about how they can be a green traveler. They might consider going on a holiday, visiting a relative, going on a class trip or visiting a local park. They

should prepare a report and pictures that can be presented to the rest of the class.

Sore Feet and Pink Rattlesnakes (pages 22-24)

- Read the article with the class. Discuss Dan's experience traveling through the Grand Canyon.
- Ask the students to write three journal entries that Dan might have written during his trip. Include information from this article such as the physical structures, wildlife, water, etc.

Raft Ride on the Colorado (pages 25-27)

- **Interviewing Skills:** Ask the students to prepare 5 questions that they would ask Louise Green if she had rafted down the Colorado River.
- **Role-playing:** Ask the students to work in pairs-one will be Louise and the other will be the interviewer. They will take turns as each person and use their prepared interview questions.

Into the Beauty, Ride a Beast (pages 30-31)

- Why are mules the best transportation into the Grand Canyon?
- How are mules prepared and trained for their role?

Culminating Activity

- **Creative Writing:** In pairs or as individuals, ask the students to write a story about their imaginary trip through the Grand Canyon. Tell them to use any of the information that they learned while reading this issue of the magazine.