



Student Handbook

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Introduction to GCY

How this Handbook Works

Use this student handbook to learn more about the different elements of the Grand Canyon Youth program and help you prepare for your trip. You may have questions that aren't covered in the book. Feel free to contact your trip coordinator, our website or the GCY office. Have fun!

Grand Canyon Youth's Mission

To provide experiential education for youth ages 12-19 along the rivers and in the canyons of the Southwest to promote environmental awareness, community involvement, personal growth, and teamwork among people of diverse backgrounds.

"This was the most amazing and fulfilling experience of my life"
~ GCY participant

The Grand Canyon Youth Program

Pre-Trip

Volunteer Work
2 hours for each day on the river.

Youth Earnings
Earn part of the trip cost by saving, working, etc.

Educational Project
Prepare a project to present on the trip.

On-River

The River Trip
Participate in the on-river activities! Work with scientists, hike, camp, play!
Share your educational project!

Post-Trip

Reunion
Meet to share photos, write thank you notes etc.

Application Process

Step One

- √ Complete Interest Form
- √ Complete GCY Application
- √ Submit Application & Deposit

Step Two

- √ Receive Student Handbook
- Complete Pre-Trip Requirements

Step Three

- Submit documentation
 - Earnings
 - Service
 - Educational Outline
- Final payment due
- Attend Pre-trip meeting

Educational Project

Purpose

- To learn about a subject related to the Southwest that you find interesting.
- To teach other participants what you've learned.
- To present your project creatively, making it fun and interactive!

Guidelines

- You will need to submit an outline of your project to your Teacher or Trip Coordinator. Use the sample on the next page to help guide your plan.
- Presentations should be about 10-15 minutes long.
- Your river guides will help you choose an appropriate time and place on the trip to make your presentation.

Some Project Ideas (these are only suggestions, please feel free to use your own ideas)

History

- Native American people, past and present
- Early settlers, miners, or explorers
- History of river runners

Geology

- Classification of rock types
- Environments in which different rock types were formed
- Fossils
- Uplifts, faults and other geological features

Ecology

- Human impacts on the environment
- Relationships between living (plants & animals) and non-living (soil, water, temperature) aspects of the desert environment

River

- Rate of flow, sediment, etc.
- Erosion: steep cliffs vs. wide meanders
- Formation of rapids and reading the water (eddies, holes)

Biology

- Life along the river: species of plants, birds, fish, reptiles, etc.
- Native versus exotic species
- Endangered or threatened species

Archaeology

- Ancient civilizations
- Rock Art

Astronomy

- Using star maps; research to see which constellations will be in the night's sky and locate them at night during the trip
- How explorers used the stars to navigate and make maps

Educational Project Outline

Title of Project:

Project Goals:

- Why are you interested in this subject?
- What are you hoping to learn?
- What should we know at the end of the presentation?
- Why is it important that we learn this?

Format of your Project:

- How will you present your project (skit, game, demonstration, activity)?

Equipment or Materials:

- What kinds of materials will you need?
- Will you bring it on the trip, or is it part of normal river gear?

Contents:

- List at least three things your peers should know by the end of your presentation.

Review:

- How will you know whether your peers have learned what you've taught?
(Verbal quiz, demonstrate, participation in a skit, etc)

Sample Educational Project Outline

Title: Flashfloods!

Goals:

- 1) I'm interested in learning how flashfloods form, why they're so destructive, and what you can do to protect yourself from them.
- 2) I'm hoping to teach my peers this information. I also want them to be able to protect themselves when traveling in wilderness areas where there is a risk of flashing.

Format:

- 1) Hopefully, I will give my presentation in an area with obvious signs of past flash floods - so my peers can see the impact of these floods.
- 2) Then I will briefly discuss my findings, presenting the facts I want everyone to know by the end of my lesson.
- 3) Then I will demonstrate a mini flashflood using a bucket of water and sand.

Equipment

I will just need a bucket - from the boats

Content:

By the end of my presentation I want people to know weather signs, places where the danger of getting caught in a flashflood is greater (steep canyons, washes), and how to (try) to escape if possible.

Review:

I will have a brief verbal review, answer any questions people may have, and discuss any personal encounters that the students may have had with flashfloods.

Educational Project Tips & Resources

On-Line Resources:

Grand Canyon Explorer - www.kaibab.org

Grand Canyon National Park: www.nps.gov/grca

Northern Arizona University Cline Library: www.nau.edu/cline

United States Geological Survey - www.usgs.gov

The EnviroLink Network - www.envirolink.org

Environmental Protection Agency - www.epa.gov/enviroed

Willow Bend: www.willowbendcenter.org

Educational Project Tips:

1. Choose a topic that interests YOU! If you're not interested in it, nobody will be!
2. Choose a realistic topic. Keep it simple but interesting. Challenge yourself but don't go *too* far beyond your boundaries. Remember, learning should be fun!
3. Identify a theme and stick to it! "Mountain lions" is a great topic, but just giving random information about them is a lot for you to present and may be too much for your listeners to absorb. Choosing a more specific theme from your topic narrows the field. For example, "mountain lions are great hunters." From here you can identify the adaptations of mountain lions that make them great hunters. Referring back to your theme throughout the presentation helps the audience connect the information better.
4. Activity: Your audience will thank you! Activities are a wonderful way to encourage hands-on learning. Games, pair-and-share, trivia questions, etc. engage the audience and make it enjoyable for all.

Interaction with the audience is also important. Ask lots of questions to engage the audience. Each person has a different way of looking at an issue and can offer unique information on subjects. Also, it helps your audience feel like they are part of a discussion rather than listening to a lecture.

5. Visual Aids. Just listening to words is difficult for most people. In general, people learn better through a variety of media. However, this doesn't mean you need a complex poster. If you are talking about nature and you are in nature, use the nature around you.

Some ways to make your project interactive and fun:

- Design a skit
- Role play
- Use demonstrations
- Make a poster
- Design a game to play
- Include an art project that everyone can do

Volunteer Work

Purpose:

- To learn about your community
- To step outside your comfort zone
- To help others
- To earn your river trip

Guidelines:

- You can find the required hours on the letter you received with this handbook
- You can perform volunteer work with a group or individually, as well as use hours you have completed during the current school year.
- Document your volunteer work and turn in documentation at your pre-trip meeting or send to the GCY office at least two weeks prior to your trip.
- We encourage you to complete more volunteer work than the minimum required for your trip. This looks great on college applications and you'll be helping your community. Just let GCY know how many hours you have completed.
- Keep track of your hours on the sheet provided or you can turn in your own sheet, just make sure that it lists the date, type of activity, and how many hours with a signature of either a supervisor, teacher or your parent.

Volunteer Resources

Ask your Trip Coordinator

One of your Trip Coordinator's responsibilities is to help you find community service opportunities that match your interests. Ask him or her for help.

Volunteer Manual

GCY maintains an extensive list of organizations in Flagstaff that welcome youth volunteers for a variety of projects. Contact the GCY office for potential volunteer opportunities.

Be Creative

If you live outside of Flagstaff or just want to try something different a great way to come up with a service project idea is by thinking about community needs and community strengths and seeing where you fit in. Be creative!

Youth Earnings Requirement

Purpose

- To gain responsibility.
- To feel like you have earned your river trip.

Guidelines

- Come up with a plan to earn your portion of the trip cost. There are some ideas listed below.
- Keep track of your hours on the Youth Earnings Documentation form and turn in with your Community Service Documentation and Educational Outline two weeks before your trip. Program costs are explained below.

Some Notes

- We do our best to keep our costs as low as possible all of our trips are supplemented through grants received by Grand Canyon Youth.
- Grand Canyon Youth works hard to offer scholarships for students who have the need. Scholarships availability is subject to funds available.

Some ideas for earning your portion of trip costs:

...having friends and family sponsor your trip, saving your allowance, working for your parents, getting a part-time job, or baby-sitting for family friends. Never put yourself in an unsafe situation or work alone with adults you do not know. Always let you parents know where you are working. Also, please contact GCY first before approaching businesses about sponsorship.

Financial Support

Anyone can participate in Grand Canyon Youth, regardless of cost. For financial support, please consider:

- **Need-based Scholarships**
The need-based scholarship form was included in your Application to Participate. If your family can't afford the cost of the GCY program, please apply for a scholarship. There are limited funds available for scholarships, applying for a scholarship does not guarantee you will be awarded.
- **Fundraising**
You can fundraise individually or with your group. Some ideas for fundraisers include bake sales, car washes, and holiday events.

Behavior & Other Expectations

Positive program behavior is important for a successful river trip. Your cooperation with these expectations will improve everyone's experience on the river.

Safety

- Abide by all safety policies and do not take unnecessary risks.
- Forgo the use and/or possession of weapons, tobacco products, drugs or alcohol.
- Give an extra set of prescribed medications to trip coordinators (when applicable).
- Dress appropriately at all times.
- Help make the trip fun and safe for everyone.

Tolerance & Flexibility

- Be flexible, patient, and open in the face of new and challenging situations.
- Try your best and give generously of yourself.
- Help out whenever possible.
- Leave behind all electronics devices.

Respect & Positive Attitude

- Be respectful of others in group, including guides and trip coordinators.
- Respect the natural environment and prehistoric artifacts.
- Respect and care for all equipment on the trip.
- Participate positively and fully in all group meetings and activities.
- Maintain group cohesion by not becoming involved in cliques or romantic/sexual relationships.
- Grand Canyon Youth reserves the right to dismiss without, any refund and at the expense of the participant, those who do not follow these expectations.

Low-Impact Camping Ethics

Participants in all Grand Canyon Youth programs must follow Leave No Trace principles. The river guides are aware of the correct policies and procedures for the river corridor and will explain the guidelines to the group. If you are interested in learning more about these ethics before your trip, visit the Leave No Trace website www.LNT.org.

The Leave No Trace principles include

Plan Ahead and Prepare, Travel and Camp on Durable Surfaces, Dispose of Waste Properly, Leave What You Find, Respect Wildlife, Be Considerate of Other Visitors

Fun River Facts

Grand Canyon Facts

- One of the great natural wonders of the world.
- First protected as a forest reserve in 1893 by President Benjamin Harrison, established as Grand Canyon National Monument in 1908 by President Theodore Roosevelt.
- Doubled in size in 1975 through an act of law signed by President Gerald Ford. Named World Heritage Site in 1979.
- Averages 5 million visitors per year.
- Home to 75 species of mammals, 50 species of reptiles and amphibians, 25 species of fish and more than 300 species of birds.
- Boasts approximately 2,500 species of plants, mosses and other vegetation.
- Averages temperatures of 18-85°F on South Rim; 15-77°F on North Rim; 38-105°F at river level.
- Spans 1,217,403.32 acres or 1,904 square miles.

San Juan River Facts

- The San Juan originates as a small stream beneath the Continental Divide near Pagosa Springs, CO.
- From the headwaters to the confluence with the Colorado River in Glen Canyon, the San Juan is about 400 miles long.
- Mule Ear Diatreme is a prominent rock remnant of a subterranean gaseous explosion
- Grand Gulch, on the San Juan, is a 50 mile long canyon with incredible archeological sites and artifacts.
- Some animals that inhabit the San Juan River ecosystem include beaver, mule deer, coyote and rock squirrel.
- The San Juan River is at the heart of the Ancestral Puebloan culture.

The River Rating System

Almost all rivers are rated on the International Scale of 1-6; a Class 6 river is impassable. However, on the Colorado River through Grand Canyon the rapids are rated at a scale of 1-10. The rating of rapids relates to the difficulty of the rapid, therefore a rapid you may get wet in will only be a class II whereas, another rapid where you don't even get wet is rated a class IV. The same rapid can have different classifications depending on how much water is in the river. If you are interested more in the rating system ask your guide once you are on the river or if you are nervous about the rapids contact your Trip Coordinator or the office for more details. Remember, the rapids can be fun but they are only a small part of the overall experience of being on the river.

Other Resources

Information about rivers and river running

America Whitewater Association - www.americanwhitewater.org
Grand Canyon River Guides - www.gcr.org

Stores in Flagstaff where you can purchase river shoes/equipment

Peace Surplus Inc - 14 W Route 66 - 928-779-4521
Aspen Sports - 15 N San Francisco - 928-779-1935
Babbitt Backcountry Outfitters - 12 E Aspen - 928-774-4775

River Gear Online

River Connection - www.riverconnection.com
NRS - www.nrsweb.com
Altrec Outdoors - www.altrec.com
Sierra Trading Post - www.sierratradingpost.com
River World - www.riverworld.com
Clavey River Equipment - www.clavey.com
Teva river shoes - www.teva.com
Chacos - www.chacousa.com

Service Learning and Volunteerism

Service Learning - www.servicelearning.org
AmeriCorps - www.americorps.org

A Few Good Books about Rivers

These aren't required reading but may help get you excited about your trip.

- **The Exploration of the Colorado River and its Canyons** - John Wesley Powell
- **Breaking into the Current: Boatwomen of the Grand Canyon** - Lousie Teal
- **Writing Down the River: Into the Heart of the Grand Canyon** - Gretel Ehrlich and Annick Smith
- **Waterlines-** Ann Weiler Walka
- **San Juan River Guide** - Lisa Kearsley
- **Belknap's Waterproof Grand Canyon River Guide**
- **The Doing of the Thing - the Brief Brilliant Whitewater Career of Buzz Holmstrom** - Vince Welch, Cort Conley, and Brad Dimock
- **River Runners of the Grand Canyon** - David Lavender