Grand Canyon

National Park Service U.S. Department of the Interior Grand Canyon National Park Arizona





Look inside for information on:

Welcome to Grand Canyon National Park

Grand Canyon is a land of superlatives—endless awe-inspiring views, a shadow-filled canyon punctuated with countless spires, rock layers that reveal Earth's history over an unimaginable span of time. The changing seasons provide many opportunities to experience the wonders of Grand Canyon National Park.

A few suggestions may make your visit more rewarding. The information in this publication will answer many of your questions about the South Rim. Stop by the Visitor Center at Canyon View Information Center and talk with a ranger. Plan your schedule so you can participate in a ranger-led activity. The displays at Yavapai Observation Station explain the geologic story of the canyon. Park your vehicle and ride the free shuttles. Not only do you save gas, but also the shuttle drivers never get lost. Watch a sunrise or sunset. Walk out at night to enjoy the star-filled sky or the moon-lit canyon. Pause at a viewpoint and listen to other visitors exclaiming about the canyon in many languages.

Today's Grand Canyon is a gift from past generations. We bear the responsibility to ensure that future generations have the opportunity to form their own connections to Grand Canyon National Park.

Where's the Visitor Center?

The Visitor Center is just south of Mather Point,

but you cannot drive to the Visitor Center. Canyon View Information Plaza, including the Visitor Center, was designed as the terminus for a mass-transit system that is not yet in operation. To get to the Visitor Center:

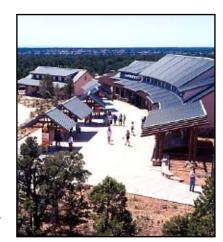
- Park Your Vehicle
 Parking lots are shown on the map on pages 8-9.
- Ride the Free Shuttle Buses

Shuttle bus routes are shown on the map on pages 8–9.

or

• Park at Mather Point Walk the 300 yards (275 meters) to the Visitor Center.

See page 9 for accessible parking.



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Caution

Edge!

Near the



Footing can be dangerous. Watch for snow and ice.

Emergency • 911

24 hours-a-day dial 911 from any phone, 9-911 from hotel phones.



Ride the Free Shuttle Buses

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Route Map a	n	d	T	ii	η	e	S			8-	_9

Hiking: The Winter Challenge



For many a hike along the rim or into the canyon is a highlight of their visit. Winter weather, icy trails, and some of the most rugged terrain on Earth make hiking both a challenging and a rewarding experience.

The weather changes quickly at this time of the year. A blue-sky day becomes a chilling snowstorm. The easy downhill walking entices hikers to venture further than they should on these short days.

Successful hikers:

- Plan ahead. Know the trail conditions and weather forecast before starting.
- **Go prepared.** Icy trails may require the use of instep crampons and hiking poles. Carry a flashlight.
- **Maintain body temperature.** Dress in layers, including a hat. Be able to protect yourself from wind and precipitation.
- Balance your food and water intake. Food provides fuel to keep walking and stay warm. Even in winter, liquids are needed to replace perspiration loss.

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

As staffing permits, Rangers present additional activities, including moon walks and star talks. Watch for program

Center, the Bright Angel Lodge patio, or at Yavapai Observation Station.

announcements posted at the Visitor Center at Canyon View Information Plaza, along the rim near Verkamp's Visitor

Ranger Programs The National Park Service invites you to enjoy the following free programs. We hope that learning about Grand Canyon and its resources will lead to a greater

Location, time, duration and frequency are posted at the Visitor Center at

or the Bright Angel Lodge patio, or at Yavapai Observation Station.

Canyon View Information Plaza, along the rim near Verkamp's Visitor Center

0				
Grand Canyon Village Activity	Location	Time	Duration	Frequency
Colorado River Talk	Location	Time	Daration	rrequericy
Enjoy the grandeur and power of the Colorado River as you explore and discuss the river's role in Grand Canyon. Program may include a short walk on a paved path. Arrive by the free Village Route shuttle bus to the Yavapai Observation Station stop or park in the Yavapai Point parking area.	Bicycle rack outside Yavapai Observation Station	9:30 a.m.	30–45 min	. Daily
Introduction to Grand Canyon's Geology 🗟 🏦				
Why is the Grand Canyon so deep, wide, and grand? Why does it exist only here in the world? Come and participate in this fascinating talk to learn how Grand Canyon formed. Plan sufficient time to arrive at the Visitor Center by the free Village Route shuttle bus.	Visitor Center at Canyon View Information Plaza	10:00 a.m.	30–45 min	. Daily
Canyon Rim Walk 				
Grand Canyon is a colorful landscape with a rich history. Enjoy an intriguing walk with a park ranger exploring the canyon's natural and cultural history. This is an easy 1/2-mile (0.8-km) walk on a paved trail. Parking may be limited near Verkamp's Visitor Center; consider parking at Lots C or D or riding the free Village Route shuttle bus to the Train Depot stop.	Verkamp's Visitor Center front porch	10:00 a.m.	45–60 min	. Daily
The Human Story 🗟 🏗				
For thousands of years, humans have been part of Grand Canyon. Join park staff at the Verkamp's Visitor Center to look at the history of the South Rim area. Program presented inside during inclement weather. Parking may be limited near Verkamp's Visitor Center; consider parking at Lots C or D or riding the free Village Route shuttle bus to the Train Depot stop.	Verkamp's Visitor Center	11:00 a.m.	30–45 min	. Daily
Kolb Studio: Images of the Past (by registration only)				
Kolb Studio, built in 1904, spills five levels down the canyon wall. The Kolb brothers played an integral role in the early years of development at Grand Canyon. From the studio they photographed countless visitors as they began their mule trips. Join a ranger for a closer look at Kolb Studio and the fascinating time in which the Kolb family lived here. Limited to 12 participants. Register at Kolb Studio for the tour prior to that day's program or by calling (928) 638-2771.	Kolb Studio	2:00 p.m.	45–60 min	. Daily
A Geo-Glimpse 🕹 🏗				
Enjoy the geology exhibits at Yavapai Observation Station and explore a selected aspect of the canyon's geology during this short talk. Arrive by the free Village Route shuttle bus to the Yavapai Observation Station stop or park in the Yavapai Point parking area.	Inside Yavapai Observation Station	2:30 p.m.	15–20 min	. Daily
Nature Walk 🕒 🗾				
Learn more about the complexity and diversity of nature with a short hike along the rim. Topics vary and may include animals and plants adapting to changing seasons, human impact on nature, how nature inspires writers and poets, rare and endangered species, or Native Americas use of plants and animals. Arrive by the free Village Route shuttle bus to the Yavapai Observation Station stop or park in the Yavapai Point parking area.	Bike rack at Yavapai Observation Station	3:00 p.m.	45–60 min	. Daily
Ranger's Choice 🕭 ங				
Explore the world of Grand Canyon during this in-depth special program. Topics change daily; check at the Visitor Center for the day's subject. Possible programs include nature talks, Native American culture, or pioneer history. Plan sufficient time to arrive at the Visitor Center by the free Village Route shuttle bus.	Visitor Center at Canyon View Information Plaza	3:30 p.m.	30 min.	Daily
Evening Program 🗟				
The perfect way to end your day at the Grand Canyon! Enjoy a ranger presentation on a significant aspect of the canyon's fascinating natural or cultural history. For this evening's topic check the schedules posted around the park. Park in Parking Lot A or ride the free shuttle bus to the Shrine of the Ages stop.	Shrine of the Ages auditorium	7:00 p.m.	1 hour	Thurs. Fri. Sat.
		(Daily: Dec	ember 18–J	Sun. lanuary 4)
Special Programs				

appreciation of your national park. Several of these programs require riding the free shuttle bus to get to the meeting location. Plan sufficient time to arrive before the start of the program.

Desert View and Tusayan Museum

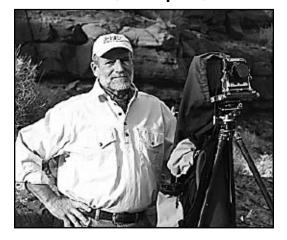
Activity	Location	Time	Duration	Frequency
Glimpses of the Past				
Have you ever wondered how 800 years ago people found food, water, and shelter? Can you envision a thriving	Tusayan Museum, 3 miles	11:00 a.m.	30–45 min.	Daily
community in this harsh and demanding environment? Join a ranger to explore the remains of an ancestral Puebloan village. This entails a journey on a 0.1-mile (0.2-km) flat, paved trail.	(4.8 km) west of Desert View	1:30 p.m.	30–45 min.	Daily

All children must be accompanied by an adult on all programs.

- All outdoor programs are subject to cancellation in inclement weather or when lightning danger is present.
- These programs are wheelchair accessible with assistance. Wheelchairs are available for loan at the Visitor Center at Canyon View Information Plaza. For programs meeting at the Visitor Center, accessible parking is available near the Visitor Center. See map on page 9.
- These family-oriented programs are ideal for meeting the ranger program requirement for the Grand Canyon's Junior Ranger badge and certification.

 Any ranger program, however, may serve the requirement on page 2 of the Junior Ranger Activity Booklet.

Canyon Experiences—Sublime to Silly Presented by Gary Ladd December 2, 7:00 p.m., Shrine of the Ages



Many canyon trips happen as planned—facts are uncovered, beauty is exposed, and familiar or hazardous routes are negotiated with aplomb. Not every trip into the canyons of the Colorado Plateau proceeds as intended. Blunders, surprises, and preposterously unlikely situations can and do occur. Although you just never know what might happen, the experience is almost always worth it. Join Gary Ladd, an award-winning landscape photographer, on a photographic trip into the canyons of the Colorado Plateau. A book signing will follow. This lecture is sponsored by the Grand Canyon Association. www.grandcanyon.org

Historic Kolb Studio Art Exhibits Through February 15: Mapping the Grand Canyon



Cartographers have attempted to map the complex features of the Grand Canyon for more than 150 years. Over time their equipment and techniques have changed dramatically, enabling them to capture fine details and diverse information. See the wide range of maps being used today for recreation, scientific inquiry, and land management. They are as beautiful as they are informative.

Exhibits are free and open to the public.

Information Centers (See pages 2–3 for ranger programs available at these locations)



Kolb Studio

Once the home and business of the Kolb brothers, pioneering photographers at Grand Canyon, this building has been restored. Visit the free art exhibits in the auditorium and shop in the bookstore. Kolb Studio is located in the Village Historic District, at the Bright Angel Trailhead. Open daily 8:00 a.m. to 5:00 p.m. See page 2 for tours of the Kolb Studio and above for art exhibits displayed here.



Verkamp's Visitor Center

On the rim east of Hopi House, Verkamp's Visitor Center hosts a bookstore and temporary exhibits about the pioneer history of Grand Canyon Village. Come warm up by the fire and enjoy the 100-year-old Verkamp's Curios building. Open daily 8:00 a.m. to 5:00 p.m.



Yavapai Observation Station

How old is the canyon? How did it form? The exhibits at Yavapai Observation Station answer these and other geology questions. The historic building, located one mile (1.6 km) east of Market Plaza, features expansive canyon views. The bookstore offers a variety of materials about the area. Open daily 8:00 a.m. to 5:00 p.m. See page 2 for ranger programs beginning here.



Canyon View Information Plaza

Don't forget to visit the Visitor Center and bookstore at the Canyon View Information Plaza. Reachable by free shuttle bus, a one mile walk or bicycle ride from Market Plaza on the Greenway Trail, or a short walk from Mather Point. The Visitor Center is open daily from 9:00 a.m. to 5:00 p.m., and the bookstore is open daily from 8:00 a.m. to 5:00 p.m. You may view the outdoor exhibits anytime.



Tusayan Museum

A visit to Tusayan Ruin and Museum provides a look into the lives of a thriving community as illustrated by its pottery, seashell bracelets, corncobs, and arrowheads. See 2,000 to 4,000-year-old original splittwig figurines. Art from today's tribes provides a glimpse into their rich cultures. The museum, open daily 9:00 a.m. to 5:00 p.m., is located three miles (5 km) west of Desert View. Free admission.



Desert View Bookstore and Park Information

The Desert View Bookstore and Park Information Center, located at Desert View Point near the park's east entrance, offers an excellent selection of publications, and park information. Open daily 9:00 a.m. to 5:00 p.m.

Passport cancellation stamp is available at all above locations.

Enjoying Grand Canyon

Personalize Your Grand Canyon Experience

Individual interests, available time, and the weather can all influence a visit to Grand Canyon. The following list of activities can help you personalize your Grand Canyon experience. To locate places mentioned below, refer to the maps on pages 8–9 and 12. An *Accessibility Guide* for visitors with limited mobility is available at the Visitor Center at Canyon View Information Plaza and Park Headquarters.

Activity

Attend free ranger programs

Visit scenic Hermit Road 7 miles one-way. Allow at least 2 hours round trip.

Explore Desert View Drive 25 miles one-way

Visit an information center or a museum

Exploring on foot:

Walk part of the Rim Trail

Day hike into Grand Canyon

Backpack in Grand Canyon

Option

- Listed on pages 2-3
- Junior Ranger program described below
- Views of river at Hopi, Mohave, and Pima Points
- Visit Hermits Rest—historic landmark with river view
- Open to private vehicles during winter months
- Tour by private vehicle or commercial bus
- Views of river at Moran Point, Lipan Point, Desert View
- Road may be closed by inclement weather
- A variety of museums and visitor centers house exhibits and provide park information
- See page 3 for more information
- See map pages 8-9; described on page 12
- Trail may be accessed at many locations along rim
- Watch for snow and icy spots
- See pages 12-13 for information on trails and safety
- It will take twice as long to hike up as it does to hike down
- Do not attempt to hike to the river and back in one day
- Trails may be very icy and require the use of instep crampons
- Permit and fees required (see page 13)
- Inquire at Backcountry Information Center (8:00 a.m.-noon and 1:00-5:00 p.m.)

Rangers' Hints

Wondering what to do if you only have a few hours? The rangers at Grand Canyon National Park have some suggestions.

Ranger Haley Bercot: How about a little sightseeing and a little science? Explore the dramatic views along the half-mile (0.8 km) Rim Trail segment between Mather Point and Yavapai Point. Watch for snow or ice along the trail, if a storm has recently passed. After studying the geology exhibits inside Yavapai Observation Station, you can either return along the trail or take the free shuttle bus back to your car. Don't forget to bring your camera and your curiosity!

Ranger Pat Gamman: If you would like to explore a more developed area, go to the historic Grand Canyon Village. In less then a half mile (0.8 km) you can visit Verkamp's Visitor Center, Hopi House, El Tovar Hotel, and Bright Angel Lodge, as well as Lookout and Kolb studios. Connecting with the history of the South Rim, while enjoying great views of the canyon, can be fun. Happy trails!

Ranger Amala Posey: For a family activity, I suggest taking the Rim Trail west from Bright Angel Lodge towards Maricopa Point. In less than a half mile (0.8 km), you will see a sign for the Rim Worship Site. Continue past the worship site for a few hundred yards. Look closely and you may find hundreds of fossils in the Kaibab limestone caprock, if the snow is not hiding them. These fossils provide evidence of a time 270 million years ago when this area was the floor of a warm, shallow sea. Sketch a fossil or take a picture, but please leave these clues of the past for others to enjoy.

Ranger Pam Cox: If you are feeling adventurous and want an experience below the rim, I recommend taking the South Kaibab Trail down to Ooh Aah Point. It is less than a mile (1.6 km) one way, but the trail is steep and can be icy after snowfalls. Be prepared for winter conditions and for breathtaking panoramic views!

Interagency Annual Pass

If you are a frequent visitor to National Park Service or other federal agency sites that charge entrance fees, you may be interested in the new *America* the Beautiful - National Parks and Federal Recreation Lands Pass. The \$80.00 pass is valid for one year from the time of first use. Five federal agencies—National Park Service, Bureau of Land



Management, Bureau of Reclamation, U.S. Fish and Wildlife Service, and U.S. Forest Service—participate in the pass.

The program also offers a lifetime Senior Pass (\$10.00) for U.S. citizens 62 or over and a free Access Pass for citizens with permanent disabilities. Those who already have a Golden Age or Golden Access pass do not need to obtain the new passes.

The *America the Beautiful* pass may be purchased at park entrance stations, Grand Canyon Association bookstores, or online at www.recreation.gov. The Senior and Access passes are available only at the entrance stations.

Winter Wildlife Warning

Early winter is a time of great activity for the animals at Grand Canyon National Park. Many are feeding as much as they can or are storing food for later use. For deer it is the time of the rut and they may show aggressive behavior.

Winter snow and cold place different demands on our wildlife. Food becomes scarce, just as the need for body warmth increases. Many



animals reduce their activity to conserve their energy resources. Some, like the rock squirrels that are so common in summer, are now in hibernation. Deer and elk are not moving about as much. If you attempt to approach these animals, they may run away, wasting precious energy. Always observe and photograph wildlife from a distance without disturbing them.

It is dangerous, and illegal, to feed wild animals in a national park. Violators will be fined. Wildlife can become dependent upon handouts and lose their ability to hunt and forage. Such animals lose their fear of humans. They can become aggressive and bite, kick, or gore. Many are struck by cars while searching for handouts. Never feed or approach wildlife. Help us keep wildlife wild.

Would you like to be a Junior Ranger?

Grand Canyon National Park offers a Junior Ranger program for children ages 4 and older.

To take part in the program, pick up a Junior Ranger booklet at the Visitor Center at Canyon View Information Plaza or Tusayan Museum information desk and complete the activities listed for the appropriate age level.

Once completed (don't forget attendance at one or more ranger programs) bring the booklet back to the Visitor Center at Canyon View Information Plaza, Verkamp's Visitor Center, or Tusayan Museum to receive an official Junior Ranger certificate and badge.



Enjoying Grand Canyon

Superintendent's Greeting



Winter is a wonderful time to be visiting Grand Canyon National Park. The brisk, crystalline air makes the canyon's colorful buttes and shadowy depths appear closer. A winter storm cloaks trees and cliffs in a landscape-altering layer of snow. Sunrises come later, so you do not have to get up as early. You share this memory-making experience with fewer visitors.

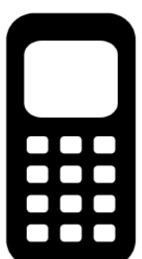
While here, I encourage you to drive out on the recently rehabilitated Hermit Road. Walk along the newest segment of the Greenway Trail from The Abyss to Pima Point or Hermits Rest. Warm up by the fire in Verkamp's Visitor Center, near Hopi House. This 100-year-old building hosts our most recently opened visitor center. Attend one or more of the ranger programs to learn about the history and natural wonders of Grand Canyon.

President Theodore Roosevelt stood on the South Rim more than a century ago and implored the assembled crowd to "keep this great wonder of nature as it now is... Keep it for your children and your children's children, and for all who come after you, as one of the great sights which every American, if he can travel at all, should see." Today we welcome visitors from all around this world to this great wonder, but it is still our responsibility to preserve Grand Canyon for future generations.



Steve Martin—Superintendent, Grand Canyon National Park

Cell Phone Tour



Your cell phone provides another way to learn more about Grand Canyon National Park. You can listen to a narration over your cell phone at numerous points of interest on the South Rim between Maricopa Point on the west and Yaki Point on the

Wherever you see one of the cell phone tour signs, dial (928) 225-2907 and enter the indicated stop number. You will hear an interpretive ranger give a two-minute synopsis on various aspects of the canyon from geology to Native American history to the night sky.

There is no additional charge to listen to these messages. Please be aware that cell phone coverage can be spotty and not all providers offer service in the park.

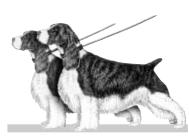
Sunrise Sunset

Date	Sunrise	Sunset
Dec. 1	7:21 a.m.	5:14 p.m.
Dec. 7	7:26 a.m.	5:14 p.m.
Dec. 14	7:32 a.m.	5:15 p.m.
Dec. 21	7:36 a.m.	5:18 p.m.
Dec. 28	7:38 a.m.	5:22 p.m.
Jan. 4	7:40 a.m.	5:28 p.m.
Jan. 11	7:39 a.m.	5:34 p.m.
Jan. 18	7:37 a.m.	5:41 p.m.
Jan. 25	7:34 a.m.	5:48 p.m.
Feb. 1	7:29 a.m.	5:56 p.m.
Feb. 8	7:23 a.m.	6:03 p.m.
Feb. 15	7:15 a.m.	6:10 p.m.
Feb. 22	7:07 a.m.	6:17 p.m.

Moon Phases

New Moon	Full Moon	Moon Rises
	Dec. 12	5:16 p.m.
Dec. 27		
	Jan. 10	5:15 p.m.
Jan. 26		
	Feb. 9	6:33 p.m.
Feb. 24		

All times are Mountain Standard Time.

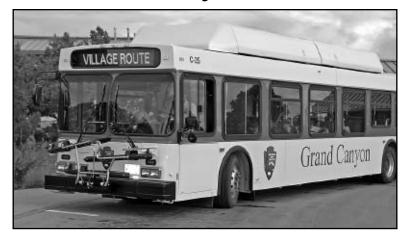


Pets Must Be Leashed at All Times

Leashed pets are allowed on rim trails throughout the developed areas of the South Rim, but not below the rim. The only exception is service animals.

Persons wishing to take a service animal below the rim must check in first at the Backcountry Information Center. Kennels are available. Telephone: (928) 638-0534.

The Canyon's Best Bargain: The Free Shuttle Bus System



For more than 30 years the National Park Service has provided a free shuttle bus system on the South Rim. Visitors and residents have made 85,000,000 boardings. Many of the buses use compressed or liquefied natural gas, a much cleaner burning fuel. Buses have provisions for improved accessibility. Riding the shuttles makes your stay more enjoyable, while reducing pollution and decreasing traffic congestion.

How do I use the free shuttle buses?

The map on pages 8-9 is the key. The map shows routes, stops, operating times, and route lengths. Park your vehicle in one of the parking areas, proceed to the nearest bus stop, and board the next bus. It is that simple. The buses come by every 10–20 minutes. There are no tickets to obtain, and you are free to get on and off at any stop. The routes are designed so you can ride to a stop, enjoy the view, shop at a gift store, or walk along the rim and then hop on a later shuttle.

Where do the shuttles go?

Two shuttle routes run during the winter. They do not overlap, although they interconnect. Buses are identified with a colored square near the boarding door.

Hermits Rest Route (red) Not in operation from December 1 to February 28.

Village Route (blue) This loop connects the visitor center, lodging, restaurants, gift shops, and campgrounds. It may be the best way to get to many of the ranger programs.

Kaibab Trail Route (green) Leave from Canyon View Information Plaza and go to the South Kaibab Trailhead and viewpoints along the rim.

See pages 8–9 for a map with routes, stops, and times.

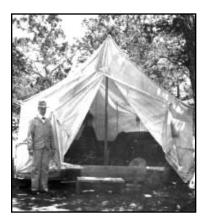
Grand Canyon Audio Ranger: Your Personal Tour Guide to the South Rim



The Grand Canyon Audio Ranger, your personal tour guide to the South Rim, is now available in the park on reloadable MP3 flash-drive players. The park's geology, human history, wildlife and natural history come alive in the 117 minutes of narration, music, and comments from National Park Service rangers and historical figures, making for an enjoyable walk in the park. You can listen to the stops in order, or pick your favorites and play only those. Stop in at any of the Grand Canyon Association bookstores/information centers listed on page 3 to find out more about the *Grand Canyon Audio Ranger*.

Park News

Verkamp's Visitor Center



January 31, 1906 \$4.98 A good day. So recorded John Verkamp in the ledger for his first day of business in the new store on the South Rim of Grand Canyon. After such a promising start, Verkamp's Curios would continue in operation for more than a century.

John Verkamp headed to the developing South Rim in 1898. He set up a tent and sold souvenirs to the few people who made the long stagecoach trip to

the rim. Not happy with the volume of business, at the end of the summer he sold his inventory to one of the hotel operators and went back to Flagstaff.

Development of the South Rim boomed with the completion of the railroad spur in 1901. Verkamp returned the South Rim in 1905 and constructed the current building with supplies shipped in from Los Angeles. He opened his business early in 1906.

The building also served as his residence. Several generations of Verkamps grew up on the rim enjoying daily views of the canyon and helping in the store. When the store was too busy, a bell would ring upstairs and one or more Verkamps would run down to help. Water has long been scarce at the canyon. The flat roof of the residence collected rainwater and snowmelt and funneled it to a cistern dug into the limestone under the front porch.

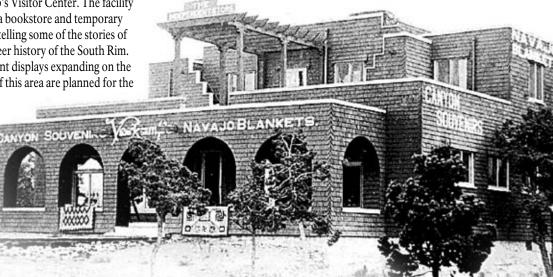
The Verkamps built their business on service—service to their guests, service to their employees, and service to the community. The story of the Verkamp family at Grand Canyon concluded this last September when they closed the doors on Verkamp's Curios.

The National Park Service now owns the building and has reopened it as Verkamp's Visitor Center. The facility features a bookstore and temporary displays telling some of the stories of the pioneer history of the South Rim. Permanent displays expanding on the history of this area are planned for the Stop by Verkamp's Visitor Center, a short walk east of El Tovar Hotel and Hopi House, the canyon's newest visitor contact station in one of its oldest buildings. Warm up by the fire or enjoy the view from the front porch. National Park Service rangers and Grand Canvon Association staff will answer any questions you may have. Several

ranger-conducted activities, described on page 2, start here. The Rim Trail leads from Verkamp's Visitor Center to other businesses and viewpoints along

Left: John Verkamp in front of his tent in 1898.

Below: Verkamp's Curios in 1908.



Winter Hiking

Grand Canyon invites exploring on foot, even in the winter. The nearly level Rim Trail goes for miles with unfolding views framed by gnarly piñon and juniper around every corner. The trails descending into the canyon lead to warmer climes and adventures among the buttes and canyons.

Special Considerations

Temperatures moderate from cold winter mornings to mild afternoons. Storms move in quickly from the Pacific Coast bringing snow. Dress in layers to meet the variable conditions. Always take along a hat, gloves, and a coat to protect you from wind or precipitation. Check the weather forecast before starting out. Winter days are short and the trails inviting. A flashlight or headlamp is handy in case you linger on the trail too long into the evening. Do not forget to eat and drink along the way. Keep your body well fueled. Most importantly, let someone know your

plans and report back when you return. Day hikers do not need a permit, but overnight backpackers must obtain a backcountry permit before starting.

Rim Trail

The Rim Trail stretches from Pipe Creek Vista on Desert View Drive west to Hermits Rest, a distance of approximately twelve miles (19 km). The section from Pipe Creek Vista to Bright Angel Lodge (4 mi./6.4 km) is paved and presents only a few short sections with grades that exceed accessibility standards. Although the National Park Service attempts to plow snow from the trail as soon as possible after each storm, watch for snowy or icy spots. Several shuttle bus stops near this portion of the trail allow you to combine walking with a free shuttle bus ride back to your vehicle or lodging.

West of Bright Angel Lodge, the Rim Trail narrows and climbs the Bright

Angel Fault to viewpoints along Hermit Road. It remains paved until Maricopa Point, where a dirt path detours around the Orphan Mine. The National Park Service trail crew worked on the Rim Trail from Maricopa Point to The Abyss this summer, so the dirt tread is in excellent shape. Snow accumulates on the trail as it skirts Hopi Point.

A new multi-purpose trail stretches from the west side of The Abyss to Hermit Rest. This paved section accommodates hikers, bicyclists, and visitors using wheelchairs, following an older road alignment away from Hermit Road and along the rim.

Trails into the Canyon

Bright Angel and South Kaibab Trails remain the most popular paths into the canvon for hikers and mule riders. Day hike destinations include Mile-and-a-Half or Three-Mile Resthouses or

Indian Garden (for experienced hikers) on the Bright Angel Trail and Ooh-Aah Point or Cedar Ridge on the South Kaibab Trail. Both trails descend northfacing walls of the canyon that accumulate snow and ice, becoming very treacherous. Instep crampons, small, pointed metal plates that attach to your boots, increase your traction. Even the mules wear caulked shoes to provide a better grip on the ice. Instep crampons may be available at the Canyon Village Marketplace general store.

Hikers on the South Kaibab Trail can park in the lot on the south edge of Canyon View Information Plaza. Follow the signs from the main park road east of Mather Point. This parking area is near the bus stop for the free Kaibab Trail Route that goes to the South Kaibab Trailhead.

Hermit Trail at the end of Hermit Road leads to interesting destinations, but is narrower and less developed than the

above trails. This trail may have less ice and snow, since it faces more westerly.

Always check on trail conditions before setting out on a hike. Talk with the rangers at the Backcountry Information Office or in the visitor centers. The bookstores feature many publications with trail descriptions. Winter hiking with fewer people and the natural quiet can be enjoyable or life threatening, depending on your preparation.



Instep crampon

There's Only One Grand Canyon

Basic Answers to Your Geologic Questions

How old?

The rocks exposed within Grand Canyon range from the fairly young to the fairly old (geologically speaking). Kaibab limestone, the caprock on the rims of the canyon, formed 270 million years ago. The oldest rocks within the Inner Gorge at the bottom of Grand Canyon date to 1,840 million years ago. For comparison geologists currently set the age of Earth at 4,550 million years.

How new?

While the rocks are ancient, the canyon is young. Geologists generally agree that canyon carving occurred over the last 5–6 million years—a geologic blink of the eye.

Why here?

Beginning about 70 million years ago, heat and pressure generated by two colliding tectonic plates induced mountain building in western North America. An area known as the Colorado Plateau was raised more than 10,000 feet (3,000 m), but was spared most of the deformation and alteration associated with the uplifting of strata. This high plateau, so critical to Grand Canyon's story, is a geological puzzle that researchers still seek to understand.

Why deep?

Without the Colorado River, a perennial river in a desert environment, Grand Canyon would not exist. Water draining off the western slopes of the southern Rocky Mountains carried sand and gravel, cutting down through the layers of rock. Without the uplift of the Colorado Plateau, there would not have been the thousands of feet of topography to sculpt. From Yavapai Point on the South Rim to the Colorado River is a change of 4,600 feet (1,400 m), yet the river still flows 2,450 feet (750 m) above sea level.

Why wide?

The width results from the rock layers collapsing around the river and its tributaries combined with the "headward erosion" of these side streams. Softer, weaker layers erode faster, undermining the harder, stronger layers above them. Without adequate support, the cliffs collapse. The relentless river carries this eroded material to the Gulf of California. Much of what is now southeastern California and southwestern Arizona is covered with material eroded from Grand Canyon.

Over its 277 river miles (446 km), the jagged Grand Canyon varies in width. Along the South Rim, it ranges between 8 and 16 miles (13–26 km) depending upon where you choose to measure.

Why Grand?

Often described as Earth's greatest geological showcase, the ensemble of stunning dimensions—the melding of depth, width, and length—sets Grand Canyon apart. Nowhere else features such a dazzling variety of colorful rock layers, impressive buttes, and shadowed side canyons. Grand Canyon is the canyon against which all other canyons are compared.

Illustration:

1. Kaibab Formation	270 million years
2. Toroweap Formation	-
3. Coconino Sandstone	
4. Hermit Formation	280 million years
5. Supai Group	315–285 million years
6. Redwall Limestone	340 million years
7. Temple Butte Formation	385 million years
8. Muav Limestone	505 million years
9. Bright Angel Shale	515 million years
10. Tapeats Sandstone	525 million years
11. Grand Canyon Supergroup	1,200 million-740 million years
12. Vishnu basement rocks	1,840–1,680 million years

Want to know more?

The geologic story is rich in detail and mystery. Attending a free ranger program may move you from wonder to comprehension. Programs are described on pages 2–3.

Grand Canyon Association bookstores offer many geology related titles. Bookstore hours and locations are listed on page 6. To learn more about geology at Grand Canyon, take a look at:

- Yardstick of Geologic Time, Allyson Mathis
- Introduction to Grand Canyon Geology, Greer Price
- Carving Grand Canyon, Wayne Ranney
- Ancient Landscapes, Ron Blakey/Wayne Ranney

Park News and Education

Grand Canyon as a Classroom

People visit Grand Canyon National Park for many reasons and enjoy it in many ways. The park serves as a classroom for a large number of "students" each year.



Elementary and Middle Schools

The Environmental Education staff reaches out in several ways to bring Grand Canyon and students together. The staff has designed nine different ranger-led, curriculum-based field trips on geology, ecology, and history for grades kindergarten to middle school. Last year 6,658 students and

1,243 chaperones from 250 schools came to the park to participate in these activities.

During the winter, when it is too cold to be outdoors in the park, rangers travel to schools throughout Arizona and southern Utah to give programs in classrooms or at school assemblies. Last year rangers made presentations in more than 200 schools. For schools even farther away, the park makes available long distance learning opportunities via video-conferencing.

Several weekends each year the National Park Service conducts teacher workshops at the canyon. The workshops cover pre- and post-visit activities, as well as a walk-through of programs for classes coming to the park.

Field trips, classroom visits, and workshops are free, but require advanced

registration. For more information or to make reservations, visit www.nps.gov/grca/ forteachers/index.htm.

University Students: The Grand Canyon Semester

The National Park Service partners with Northern Arizona University to offer an unforgettable, life-changing undergraduate learning experience. Students earn 15 - 18 semester units while living for a semester on the NAU campus at Flagstaff and in Grand Canyon National Park. On backcountry field trips, in traditional classrooms settings, around campfires, and floating down the Colorado River through Grand Canyon, students confront current issues of the American West centered on the Colorado Plateau.

Northern Arizona University currently is accepting applications for the fall 2009 Grand Canyon Semester. For more information and to begin the application process, go to www.grandcanyonsemester.nau.edu.

Families and Adults

The Grand Canyon Field Institute provides a variety of educational opportunities throughout the park. Single day classes, multi-day rim classes, and backpacking adventures explore the park throughout the year. Activities geared for families include day hikes and rim-based adventures. Special interest classes cover topics ranging from photography through natural history, even yoga on the rim. Backpacking trips vary from introductory trips on the popular cross-canyon trails to strenuous hikes into seldomvisited corners of the canyon.

The Grand Canyon Field Institute is a program of the Grand Canyon Association done in cooperation with the National Park Service. Since 1993, thousands of participants have joined the GCFI instructors on exciting, educational adventures. To view the 2009 catalog or to register online go to www.grandcanyon.org/fieldinstitute.

Catalogs can also be picked up at bookstores and visitor centers throughout the park. Or call toll-free (866) 471-4435.

In addition to these formal educational opportunities, rangers present a variety of free walks, talks, and programs throughout the day all year around. See pages 2 and 3 for the activities available during your visit.

The Orphan Mine: a Continuing Story

A uranium mine in Grand Canyon National Park? Imagine a mining operation with ore trucks rumbling through Grand Canyon Village. How could an active mine exist in a national park?

In 1891 Daniel Hogan and a Havasupai guide found promising copper ore in the Coconino Sandstone 1,100 feet below the rim just west of present-day Maricopa Point. A few years later, Hogan claimed the site as the Orphan Mine. He built a perilous trail, sometimes called "Hogan's Slide," scaling the canyon wall via ropes, ladders, and rock steps, and did some mining. Hogan served in the Spanish-American War as one of Teddy Roosevelt's Rough Riders. In 1906, two years before Grand Canyon became a national monument, President Theodore Roosevelt signed the mining patent giving Hogan ownership of the 20.26 acres of his claim, including about four acres on the rim.

Thirty years later Hogan decided that tourism would be more profitable than mining and built twenty cabins, a trading post, curio shop, and a saloon on his claim atop the rim. Hogan's Orphan Mine, owned by a series of people and companies, remained a private inholding as the park developed around it.

Amateur prospectors investigated unexpected radioactivity near Hogan's old ore stockpile on the rim in 1951. The very ore that Hogan found so disappointing contained uranium, a much-needed commodity in the developing Cold War. Over the next decade and a half, the Orphan Mine surrendered some of the richest uranium ore in the Southwest. The ore was processed in Tuba City and the National Park Service charged two cents per ton per mile for the use of park roads.

The Orphan Mine tunnels through a geologic formation called a "breccia pipe," typical of many mines in the Grand Canyon area. These vertical columns began as caves in the Redwall Limestone. As the cave grew, its ceiling collapsed. The collapse continued upward through successive layers until rock debris (breccia) filled the cavity. Ground water filtering through layers of rock, some long ago eroded away, became rich in dissolved minerals such as copper, silver, and uranium. These minerals precipitated out cementing the breccia together.

The Orphan Mine produced 4.3 million pounds of uranium oxide ore, nearly 7 million pounds of copper, 107,000 ounces of silver, and 3,283 pounds of vanadium oxide. The last

ore shipment left the park on April 25, 1969 and the noise, dust, and mayhem of the mine ceased. The National Park Service became owner of the patent in 1987.

Remnants of the buildings that supported the mining operation, including the prominent headframe, sit on the rim, fenced to protect visitors from hazards presented by the ruins and mine waste. This winter the National Park Service has contracted to have all human-made features removed from the rim site. After the structures are gone, field investigators will obtain soil samples to determine to what extent mine wastes contaminate the site. Removal of structures and wastes below the rim will take place in future years.

The goal of the National Park Service is to have the Rim Trail once again traverse the mine site along the rim as it did when the Civilian Conservation Corps built the trail in the 1930s. The analysis of the soil samples will determine how quickly this can be accomplished. As you drive along Hermit Road, watch for contractor traffic in the area of the Orphan Mine.



Park News and Science

Clean Air and Distant Views Are Our Resources Vanishing?

Grand Canyon National Park is one of the few places left in the United States where you can see as far as it is theoretically possible to see. At Grand Canyon the average visibility is ninety miles. By comparison, in the eastern United States average visibility is twelve to twenty miles. However, exceptionally clear days are becoming extremely rare at Grand Canyon. More than 90 percent of the time, a veil of air pollution obscures distant landmarks, mutes colors, and flattens textures. The air pollution creating the haze is not concentrated enough to violate health standards, but it is visible nonetheless. This haze is usually at

its worst in the summer, when prevailing winds bring pollution from the southern parts of Arizona, California, Nevada, and northern Mexico.

The National Park Service is working to protect and restore the clear air that enhances the natural beauty of the Southwest. An extensive monitoring network in the park measures air quality, determining how much and what kinds of pollution are present. The National Park Service works with partners in federal, tribal, state, and local governments to reduce pollution loads. Some examples illustrate the range of their efforts. Inside the park, shuttle buses transporting thousands

of visitors who have parked their cars not only reduce automobile congestion, but also help lower polluting emissions. For eons periodic lowintensity forest fires have maintained park ecosystems. Today, similar fires, ignited by land-management agencies, are restoring ecosystems, but the fires and their smoke are carefully managed to limit their impacts. "Scrubbers" on nearby coal-burning power plants capture sulfur oxides before they are released into the atmosphere to reduce their effect on Grand Canyon's views.

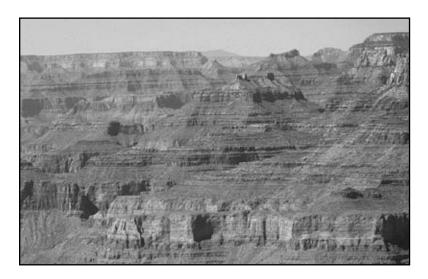
Air pollution at Grand Canyon is not simply a local problem. Most of the

haze in the canyon rides the wind from distant urban and industrial areas. We can trace the Los Angeles basin "plume," which impacts Grand Canyon's air quality, all the way to North Dakota. Actions taken in distant cities to reduce their pollution levels benefit the air here, as well.

Long-term monitoring indicates that some pollution levels have dropped at Grand Canyon, while others have risen. Even as individual pollution sources become cleaner, the sheer number of other sources, such as motor vehicles, can overwhelm these improvements. Over the last ten years at Grand Canyon, we have seen rela-

tively stable haze and atmospheric deposition ("acid rain") levels. That these pollution levels are not getting worse is promising. We have recorded, however, a disturbing rise in ozone (smog) concentrations. Restoring the canyon views to their natural splendor will require more effort. Clearly our efforts can be rewarded!

To learn more about the air quality at Grand Canyon and other national parks visit the National Park Service's Air Resources Division website: www.nature.nps.gov/air. Our webcam can be reached through this site where you can enjoy a Grand Canyon view anytime.



Since 1983 photographs have been taken three times a day looking west from the Watchtower at Desert View. The visual range in the photograph on the left is approximately 180 miles (300 km). Clear conditions such as this occur only 1 percent of the time. In contrast the photograph to the right represents a visual range of about 60 miles. Fortunately conditions such as this occur at the Grand Canyon less than 10 percent of the time. (Both photographs were taken at noon.) For a webcam view of the canyon with air quality information, visit http://www.nature.nps.webcam/parks/ grcacam/grcacam.cfm



Lost and Found

Your lost is now found But you're no longer around From the Grand Canyon it's sent With our sincere sentiment!

If you reported losing an item while at Grand Canyon National Park and received a postcard with this message, you were lucky! Someone found your property, turned it in, the National Park Service staff matched it with your lost report, and returned it to you. Park ranger Dawn Majewski created the poem while working in the Lost and Found department.

More than 4,000,000 people visit the South Rim each year. Not too surprisingly, visitors leave thousands of items behind including cameras, cell phones, clothing, backpacks, and jewelry. Another visitor may find them and turn them in to Lost and Found.

Two Lost and Found departments operate on the South Rim. The National Park Service manages one and Grand Canyon National Park Lodges (Xanterra), the lodging and dining concessioner, the other. If you have lost a personal item in the park, return to the area where you may have left it and check the nearest receiving station. If you left something in your

hotel room or at a restaurant, check with the personnel at that facility. If you forgot an item at an overlook, along a trail, or in a visitor center, talk with the rangers at the Visitor Center at Canyon View Information Plaza, Park Headquarters, Verkamp's Vistor Center, or the Backcountry Information Office. They will help you file a lost report.

If you find something that someone left behind, you play an important role. Immediately turn it in to the people at one of these same facilities. They will file a found report. The Lost and Found departments attempt to match lost reports with found items.

In a recent year, the National Park Service received almost 800 lost reports and 1,800 found items. The people in Lost and Found matched more than a quarter of the lost reports with found property and returned the items to the proper owners.

Visitors enjoy Grand Canyon National Park in many ways. They stroll along the rim trail, visit the historic village, gaze at the canyon view from Yavapai Observation Station, hike the canyon, and more. After your visit, may you go away not just with wonderful memories but with all your possessions as well!



Grand Canyon's many views are surpassed by none.

After your gazing, you're not quite done.

Take one last look as you walk away.

Do you have everything that you came with today?

Before You Go . . .

Plan Ahead

No permits are required for day hikers. You are entirely on your own. Your descent into the canyon, however brief, marks your entry into a world in which preparation, self-reliance, and common sense are crucial.

Winter Weather

On the South Rim, snow storms, blustery winds, and freezing temperatures may occur throughout winter. At Phantom Ranch rain can make your visit miserable, if you are not prepared. Learn the weather forecast. Hope for sunny skies, but go prepared for the worst conditions.

Double Your Calories, Double Your Fun

Even in winter, salty snacks and water or sports drinks should be consumed on any hike lasting longer than 30 minutes. Food is your body's primary source of fuel and salts (electrolytes) while hiking in the canyon.

If you do not balance your food intake with fluid consumption, you run the risk of becoming dangerously debilitated and severely ill. For every hour hiking in the canyon, you should drink 1/2 to 1 quart (0.5-1 liter) of water or sports drinks.

Your best defense against illness and exhaustion is to eat a healthy breakfast, a snack every time you take a drink, and a rewarding full dinner at the end of the day. This is not a time to diet.

Watch Your Time

Plan on taking twice as long to hike up as it took to hike down. Allow 1/3 of your time to descend and 2/3 of your time to ascend.

Mules and Hikers

Encounters between hikers and mules have resulted in injuries to packers and the death of some mules. To ensure safety for yourself, other trail users, and mule riders, when encountering mules on the trails:

- Step off the trail on the uphill side away from the edge.
- Follow the directions of the wrangler. Remain completely quiet and stand perfectly still.
- Do not return to the trail until the last mule is 50 feet (15 m) past your position.

Hiking Tips

- **Be Prepared:** Know your route. Know the weather forecast. The weather can change dramatically. Carry a map, flashlight, and extra clothing including wind and rain protection. Instep crampons may be necessary on icy trails and can be purchased at the General Store.
- **Stay Comfortable:** Dressing in layers is the key to comfortable hiking. This allows you to adjust to changing conditions as you go up and down the trail. As Mother always said, "Don't forget your hat!" It is important to stay dry and protected from the wind.
 - **Go Slowly:** If you can carry on a conversation, you are hiking at the right pace. If you find yourself out of breath, your legs and digestive system are not getting enough oxygen. Lack of oxygen may cause fatigue, heavy legs, and exhaustion.
- **Rest Often:** Sit down, prop your legs up, and take a 10-minute break at least once every
- **Eat and Drink Frequently:** Balance your food and water intake. Salty snacks help replace electrolytes lost through perspiration. No matter what the temperature, you need water and energy to keep going.

Hiking Chart

WARNING: It is recommended that you do not attempt to hike from the rim to the river and back in one day. There are no loop trails for day hikes; you will be hiking on the same trail in both directions. Remember! You are responsible for your own safety and the safety

Destination	Distance Round Trip	Approximate Time Round Trip	Elevation Change	Notes
Along the Village Rim	Your Choice	15 min. to 11/2-hours	200 feet (60 m)	Paved. Best easy walk. Passes historic buildings.
Along Hermit Road	Your Choice	15 min. to all day	200 feet (60 m)	Becomes unmarked dirt path west of Maricopa Point.
11/2-Mile Resthouse	3 mi. (4.8 km)	2-4 hours	1,131 feet (345 m)	Restrooms. No water in winter.
3-Mile Resthouse	6 mi. (9.6 km)	4-6 hours	2,112 feet (644 m)	No water in winter.
Indian Garden	9.2 mi. (14.8 km)	6–9 hours	3,060 feet (933 m)	Restrooms. Water.
	Plateau	Point is ext	remely stre	nuous.
Plateau Point	12.2 mi. (19.6 km)	8–12 hours	3,195 feet (974 m)	View of river. 11/2-mile beyond Indian Garden.
Ooh Aah Point	1.8 mi. (2.9 km)	1–2 hours	600 feet (183 m)	No water. First view east.
Cedar Ridge	3 mi. (4.8 km)	2–4 hours	1,140 feet (347 m)	Restrooms. No water. First hitching rail.
Skeleton Point	6 mi. (10 km)	4–6 hours	2,040 feet (622 m)	No water. Second hitching rail. First view of river.
denart daily a	t 8:00 and 9:	00 am from	Bright Ange	el Lodge shuttle bus
	Along the Village Rim Along Hermit Road 11/2-Mile Resthouse 3-Mile Resthouse Indian Garden Plateau Point Ooh Aah Point Cedar Ridge Skeleton Point	Along the Village Rim Choice Along Your Choice Along Your Choice Along Your Choice 11/2-Mile Resthouse (4.8 km) 3-Mile 6 mi. (9.6 km) Indian 9.2 mi. (14.8 km) Plateau 12.2 mi. (19.6 km) Plateau 12.2 mi. (19.6 km) Ooh Aah 1.8 mi. (2.9 km) Cedar Ridge 3 mi. (4.8 km) Skeleton 6 mi. (10 km)	Along the Village Rim Choice 15 min. to Village Rim Choice 11/2-hours Along Your 15 min. to 11/2-hours Along Your 15 min. to all day Resthouse (4.8 km) 3-Mile 6 mi. 4-6 hours Resthouse (9.6 km) Indian 9.2 mi. 6-9 hours Garden (14.8 km) Plateau Point is ext Plateau 12.2 mi. (19.6 km) Plateau Point is ext Plateau 12.2 mi. (19.6 km) Ooh Aah 1.8 mi. (19.6 km) Cedar Ridge 3 mi. 2-4 hours (4.8 km) Skeleton 6 mi. 4-6 hours Point (10 km)	Destination Round Trip Round Trip Elevation Change Along the Village Rim Choice 11/2-hours (60 m) Along Your 15 min. to (60 m) Along Hermit Choice all day (60 m) 11/2-Mile Resthouse (4.8 km) 3-Mile 6 mi. 4-6 hours (345 m) Indian 9.2 mi. 6-9 hours (644 m) Indian 9.2 mi. 6-9 hours (3,060 feet (933 m)) Plateau Point is extremely stree (19.6 km) Plateau Point is extremely stree (974 m) Ooh Aah 1.8 mi. (19.6 km) Cedar Ridge 3 mi. (2.9 km) Cedar Ridge 3 mi. (4.8 km) Skeleton 6 mi. 4-6 hours 2,040 feet

Unmaintained steep trail requires caution. Begins 500 feet west of	Waldron Basin	3 mi. (4.8 km)	2–4 hours	1,240 feet (378 m)	No water.
Hermits Rest. Water from springs must be treated before drinking.	Santa Maria Spring	5 mi. (8 km)	5–8 hours	1,760 feet (536 m)	Treat water.
For experienced desert hikers. Hiking boots recommended. May be icy in spots.	Dripping Springs	7 mi. (11 km)	6–9 hours	1,400 feet (430 m)	Treat water. Use extra caution along narrow sections.

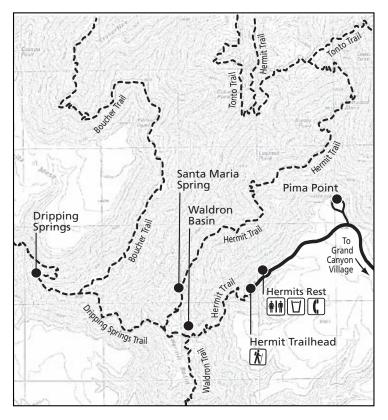
Grandview Trail

Unmaintained steep trail requires caution. Begins on canyon side of retaining wall at Grandview Point on	Coconino Saddle	2.2 mi. (3.5 km)	1–2 hours	1,190 feet (360 m)	No water. Use extra caution along narrow sections.
Desert View Drive (12 miles east of village). For experienced desert hikers. Hiking boots recommended. May be icv. Use crampons.	Horseshoe Mesa	6 mi. (9.6 km)	6–9 hours	2,600 feet (793 m)	Restrooms. No water. Use extra caution along narrow sections.

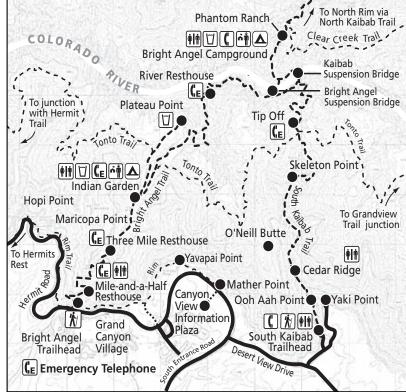
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Hiking and Camping Below the Rim

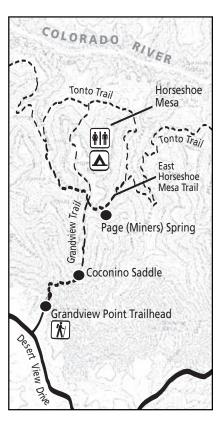
Hermit Trail



Corridor TrailsBright Angel and South Kaibab Trails



Grandview Trail



Health Hazards

Moderation is the key to an enjoyable hike. Hike within your ability, maintain proper body temperature, balance your food and water intake, and rest often. Emergency situations include:

Hypothermia is a life-threatening emergency where the body cannot keep itself warm due to exhaustion and exposure to cold, wet, windy weather.

Symptoms: uncontrolled shivering, poor muscle control, and a careless attitude.

Treatment: put on dry clothing, drink warm liquids, put victim in sleeping bag if available, and protect from wind, rain, and cold.

Hyponatremia is the result of low sodium in the blood caused by drinking too much water, not eating enough salty foods, and losing salt through sweating.

Symptoms: nausea, vomiting, altered mental states, and frequent urination.

Treatment: have the victim rest and eat salty foods. If mental alertness decreases, seek immediate help!

Leave No Trace

Leave No Trace is a non-profit organization dedicated to promoting responsible outdoor recreation through education, research and partnerships.

While enjoying your visit, please consider the

following principles to minimize your impact and help protect Grand Canyon for future generations.

- 1. Plan ahead and prepare
- 2. Travel and camp on durable surfaces
- 3. Dispose of waste properly
- 4. Leave what you find
- Minimize campfire impacts
 No campfires in Grand Canyon National Park backcountry.
- 6. Respect wildlife
- 7. Be considerate of other visitors

For more information visit www.lnt.org

Camping Below the Rim

Permit & Fees Required

Overnight backpacking in Grand Canyon provides a degree of solitude, wildness, and silence that is increasingly difficult to find. In the 1970s, overcrowding and environmental degradation made it necessary to institute a set of rules and regulations to which all backpackers are subject.

A backcountry permit is required for all overnight backpacking. The majority of available permits are reserved up to four months in advance.

A fee of \$10 per permit and \$5 per person per night is charged. The permit process allows the National Park Service to control the number of people in each use area daily, thereby limiting resource impact and impact from human waste and litter. The program allows backpackers to enjoy a greater degree of solitude in experiencing the wilderness of Grand Canyon.

Obtaining a Permit

Individuals arriving in the park without a permit may be able to obtain one by participating in a day-by-day waiting list process for last-minute space. Interested hikers should inquire at the Backcountry Information Center (located in Parking Lot E) which is open daily, 8:00 a.m.—noon and 1:00 p.m.—5:00 p.m. Guests of Phantom Ranch Lodge who have advance reservations do not need backcountry permits.

For more backpacking information, pick up a *Backcountry Trip Planner* at the Backcountry Information Center or the Visitor Center at Canyon View Information Plaza or contact:

Backcountry Information Center

P.O. Box 129

Grand Canyon, AZ 86023

Open daily: 8:00 a.m.-noon and 1:00 p.m.-5:00 p.m.

Telephone: (928) 638-7875 Mon.–Fri.: 1:00 p.m. to 5:00 p.m.

www.nps.gov/grca

Want to know more?

Grand Canyon Association bookstores offer many books and maps on hiking. Bookstore hours and locations are listed on page 3. A few items to consider include:

- Official Guide to Hiking Grand Canyon by Scott Thybony
- The Grand Canyon Trail Guides series: Bright Angel, Grandview, Havasu, Hermit, North Kaibab, South Kaibab, South and North Bass
- Grand Canyon National Park Trails topographic map

Lodging and Services



Dining: Listed west to east (approximately) along the rim.

Hermits Rest Snack Bar

Open daily: 9:00 a.m.-5:00 p.m..

Maswik Cafeteria

In the Maswik Lodge on the west side of the Village. Open daily 6:00 a.m.-10:00 p.m. Sports Lounge open daily 5:00 -11:00 p.m.

Bright Angel Restaurant

In Bright Angel Lodge. Open daily: breakfast: 6:30 -10:45 a.m., lunch: 11:15 a.m.-4:00 p.m., dinner 4:30-10:00 p.m.; Lounge 11:00 a.m.-11:00 p.m.

Bright Angel Coffee House

In Bright Angel Lodge. Open daily 5:30-11:00 a.m.

Bright Angel Fountain

Ice cream and snacks on the rim in Bright Angel Lodge. Open Dec. 23-Jan. 2. Reopens Feb. 16. Weather permitting.

The Arizona Room

On the rim next to Bright Angel Lodge. Open daily for dinner: 4:30–10:00 p.m.; Reservations are not accepted. Closed Jan. 4-Feb. 12.

El Tovar Dining Room

On the rim. Open daily: breakfast 6:30-11:00 a.m., lunch 11:30 a.m.-2:00 p.m., dinner 5:00–10:00 p.m.; Dinner reservations are required (928)638-2631 ext. 6432. Lounge 11:00 a.m. - 11:00 p.m.

Delicatessen at Marketplace

In the general store at Market Plaza. Open daily 8:00 a.m.-6:00 p.m.

Yavapai Cafeteria

At Market Plaza. Open Dec. 24-Jan. 4 from 6:00 a.m.-8:00 p.m. Reopens Feb. 12.

Desert View Trading Post Snackbar

Open daily 9:00 a.m.-4:00 p.m.

Groceries

Canyon Village Marketplace

General store at Market Plaza. Open daily; 8:00 a.m.-7:00 p.m.

Desert View Marketplace

Open daily; 9:00 a.m. - 5:00 p.m.

Lodging In the Park

All prices are subject to change. For sameday reservations, call (928) 638-2631. For advance reservations, call (888) 297-2757 or write to Xanterra Parks & Resorts, 6312 S. Fiddler's Green Cir., Ste. 600N, Greenwood Village, CO 80111. www.grandcanyonlodges.com

Bright Angel Lodge

Located on the rim. \$69-\$174.

El Tovar Hotel

Located on the rim. \$174-426.

Kachina Lodge

Located on the rim. \$170–180.

Thunderbird Lodge

Located on the rim. \$ 170–180.

Maswik Lodge

West end of village. \$90-170.

Yavapai Lodge

Market Plaza. \$107-153.

Phantom Ranch

Bottom of the canyon. Overnight dormitory and cabin space. Advance reservations are required. Call for prices.

Outside the **Park**

Grand Hotel

Tusayan. (928) 638-3333

Grand Canyon Squire Inn

Tusayan. (928) 638-2681

Holiday Inn Express

Tusayan. (928) 638-3000

Quality Inn

Tusayan. (928) 638-2673

Red Feather Lodge

Tusayan. (928) 638-2414

Camping

Camping is permitted only in designated campsites while in Grand Canyon National Park. Violators are subject to citation and/or fine.

In the Park

Mather Campground

Operated by the National Park Service. No hookups are available. Maximum vehicle length is 30 feet. Campsites are self-serve during the winter. Drive through, pick a site, and register at the automated machine at the campground office. Fee is \$15 per night; \$7.50 per night for Golden Age or Golden Access passport holders. Cash or credit cards accepted.

For reservations at other times of the year (up to six months in advance) contact Reserve America at (877) 444-6777 or visit online at www.recreation.gov.

Trailer Village

Trailer sites with hookups are located next to Mather Campground. \$30 per site per night for two people. \$2 for each additional person over age 16. Campers may register at the entrance to Trailer Village. Reservations through Xanterra Parks & Resorts: (888) 297-2757 or www.xanterra.com

Desert View Campground

Closed for the season.

Outside the Park

Camper Village

Commercial campground located one mile (1.6 km) south of park entrance in the town of Tusayan. Call: (928) 638-2887. Closed for the season.

Ten-X Campground

Operated by Kaibab National Forest. Located 2 miles south of Tusayan. Closed for the season.

Services

Laundry & Showers

Located near Mather Campground. Open 8:00 a.m.-6:00 p.m. Last laundry load: 4:45 p.m.

Bank & ATM

Located at Market Plaza. Bank open: Mon.-Thurs. 9:00 a.m.-5:00 p.m., Fri. 9:00 a.m.-6:00 p.m. Accepts travelers checks and major credit cards. Phone: (928) 638-2437. 24-hour ATM is also available.

Post Office

Located at Market Plaza. Window service: Mon.-Fri. 9:00 a.m.-4:30 p.m., Sat. 11:00 a.m.-1:00 p.m. Lobby open: 5:00 a.m.-10:00 p.m. Phone: (928) 638-2512.

Kennels

Open daily: 7:30 a.m.-5:00 p.m. Phone (928) 638-0534. For retrieval after 5:00 p.m., contact Fire and Safety at: (928) 638-2631.

Lost & Found

For items lost or found in hotels or restaurants, call (928) 638-2631. For all other lost items call (928) 638-7798. Please take found items to the Visitor Center at Canyon View Information Plaza.

Garage Services

Located east of Grand Canyon National Park Lodges general offices. Open daily 8:00 a.m-noon and 1:00 p.m.-5:00 p.m. Garage provides emergency repairs such as tires, belts, batteries, fuses, hoses, etc. Tow service provided to Williams or Flagstaff for more advanced repairs. After hours emergency service available. (928) 638-2631

Grand Canyon Community Library Mon.-Fri. 10:30 a.m.-5:00 p.m.

Sat. 10:30 a.m. - 4:00 p.m. Closed Sun. and holidays. Story time for infants through 5 years: Thurs. 11:00-11:30 a.m. Internet service available. Call (928) 638-2718 for directions to the library.

Child Day Care

The Kaibab Learning Center is available for day care of infants through 12 year olds if space is available. Immunization records must be provided. Open Mon.-Fri. 7:30 a.m.-5:30 p.m. Call (928) 638-6333 for more details.

Books/Gifts

Listed west to east (approximately).

Hermits Rest 9:00 a.m. – 5:00 p.m.

Grand Canyon Village area

Maswik 7:00 a.m. – 10:00 p.m.

Kolb Studio..... 8:00 a.m. – 5:00 p.m. **Lookout Studio** . 9:00 a.m. – 5:00 p.m.

Bright Angel . . . 7:00 a.m. – 10:00 p.m.

El Tovar......7:00 a.m.–10:00 p.m.

Hopi House 9:00 a.m. – 5:00 p.m.

Verkamp's Visitor Center 8:00 a.m.- 5:00 p.m.

Canyon Village Market Place

..... 8:00 a.m.- 7:00 p.m.

Yavapai Curio Open seasonally 9:00 a.m. – 5:00 p.m.

Yavapai Observation Station

..... 8:00 a.m.- 5:00 p.m.

Books & More

Canyon View Information Plaza 8:00 a.m. – 5:00 p.m.

Desert View area

Tusayan Museum . 9:00 a.m. – 5:00 p.m.

Desert View Bookstore/

Park Information9:00 a.m.- 5:00 p.m.

Desert View Trading Post

.....9:00 a.m.- 5:00 p.m.

Desert View Watchtower

..... 9:00 a.m.- 5:00 p.m.

Desert View Marketplace9:00 a.m.- 5:00 p.m.

Medical

24-Hour Emergency Care Dial 911 (From hotel rooms dial 9-911).

North Country Grand Canyon Clinic

Mon.-Fri.: 9:00 a.m.-5:00 p.m. Phone: (928) 638-2551.

1.

Organizations and Services

Religious Services

Religious services are offered in the park and the surrounding community. However, the National Park Service does not endorse any group or message.

Current schedules are posted at Mather Campground (near the check-in station), Shrine of the Ages, the information kiosk near the post office, the Visitor Center at Canyon View Information Plaza, and Verkamp's Visitor Center.

A Christian Ministry in the National Parks (928) 638-2340.

Grand Canyon Community Church (Interdenominational) Jared Long, Pastor, (928) 638-2340.

The Church of Jesus Christ of Latter-Day Saints

Don Keil, Branch President, (928) 638-4050.

El Cristo Rey Roman Catholic Church

Father Eugene Cagoco, D.S., (928) 638-2390.

Grand Canyon Assembly of God

Brian and Debbie Fulthorp, Co-pastors, (928) 638-9415.

Grand Canyon Baptist Church Rick Wiles, Pastor, (928) 638-2790.

labourb's Witnesses (Tusavar

Jehovah's Witnesses (Tusayan) Borden Miller, (928) 635-4166.

Service Organizations

Alcoholics Anonymous

AA meets Monday, Wednesday, and Friday at 7:00 p.m. in the Kachina Room, Kachina Lodge. Meetings are open and nonsmoking. The Al Anon Family Group meets Friday at 8:15 p.m. also in the Kachina Room.

Grand Canyon Rotary Club

Meets Thursdays at noon in the El Tovar dining room in December and in the Thunderbird Room at the Thunderbird Lodge in January and February.

Lions Club

Meets twice monthly on the 1st and 3rd Wednesdays at 7:00 p.m. at the Grand Canyon Quality Inn in Tusayan. For information call (928) 638-2271.

Tours and River Trips

Air Tours

Fixed-wing and helicopter tours of the Grand Canyon region originate daily from Grand Canyon Airport in Tusayan. A list of air tour operators is available upon request at the Visitor Center at Canyon View Information Plaza and Verkamp's Visitor Center, or consult the local telephone directory.

Bus Tours

Tours within the park to Desert View and Hermits Rest, as well as sunrise and sunset tours, are available daily. Wheelchair-accessible coaches are available by prior arrangement. Contact any transportation desk for information or call (928) 638-2631.

White Water Raft Trips

White water raft trips through the canyon last from 3 days to 2 weeks and require reservations well in advance. Most trips are offered April–October. Ask at the Visitor Center at Canyon View Information Plaza or Verkamp's Visitor Center for a *Trip Planner* with a list of river trip operators.

Mule Trips

One-,two-, and three-day mule trips into the canyon depart in the morning and may be available on a waiting-list basis. Call (928) 638-2631 or contact the Bright Angel Lodge transportation desk for additional information.

Learning & Lodging

Fun and informative programs combine lodging, meals, and two days in the field with an instructor. Inquire at the Front Desk or the Transportation Desk at any in-park lodge, or call (928) 638-2525, or visit www.grandcanyonlodges.com (click on promotions).

Hualapai Skywalk

The Hualapai Skywalk at Grand Canyon West is on the Hualapai Indian Reservation, not in Grand Canyon National Park. The Skywalk at the west end of Grand Canyon is approximately 250 miles from the South Rim—50 miles east of Highway 93 between Kingman, Arizona and Las Vegas, Nevada.

Stop by the Visitor Center at Canyon View Information Plaza or Verkamp's Visitor Center for a handout with more details and a map. For additional information or to make reservations telephone (877)716-9378 or (702)878-9378 or visit www.destinationgrandcanyon.com.

Transport

Bus Service

Greyhound Bus Lines offers service from Flagstaff and Williams, Arizona, to points nationwide. (See shuttle service below for road transport to the park.)

Shuttle Service

Two companies provide shuttle service between Flagstaff, Williams, and Grand Canyon twice daily. They also serve Phoenix as well as other points in northern Arizona.

Flagstaff Express

(800)563-1980 (928)225-2290 www.flagstaffexpress.com

Open Road Tours

(877)226-8060 (928)226-8060 www.openroadtours.com

Railroad

Grand Canyon Railway offers service between Williams, Arizona, and Grand Canyon. Call 800-THE-TRAIN for information and reservations. The Railroad Express offers bus service to take a oneway trip on the vintage train. To ride on the train one-way in the morning, contact any transportation desk. To ride on the train one-way in the afternoon, contact the Grand Canyon Railway at 800-THE-TRAIN [(800) 843-8724].

Taxi Service

Service is available to the Grand Canyon Airport, trailheads, and other destinations. 24-hour service daily. Call: (928) 638-2822 or (928) 638-2631, ext. 6563.

Transportation Desks

Information about Phantom Ranch facilities, mule trips, horseback riding, air tours, one-day float trips, and motorcoach tours (including wheelchair-accessible vehicles) is available at the lodge lobbies. Call (928) 638-2631, ext. 6015.

Maswik Lodge

Times vary based on seasonal demand.

Bright Angel

6:00 a.m-6:30 p.m.

Yavapai Lodge

Times vary based on seasonal demand.

Additional Out-of-Park Services

The following facilities are located in Tusayan, outside the park's south entrance on AZ Highway 64 South.

For additional services not listed, consult the local telephone directory. Area code (928) for all numbers listed below.

Fuel

Conoco Service Station 638-2608

620 2151

Food

Laie Tusayan
Canyon Food Mart638-2608
Canyon Star
General Store
McDonald's
Pizza Hut638-4629
Quality Inn638-2673
Squire Inn Restaurant638-2681
Гusayan Steakhouse638-2780
We Cook Pizza, Etc638-2278
Wendy's638-6484

Internet Access

Grand Canyon Tourist Center	. 638-2626
Quality Inn	. 638-2673
Red Feather Lodge	. 638-2414
Jennifer's Internet Bakery Cafe	. 638-3433

Cinema/Movie

Kaibab National Forest

Tusayan Ranger District 638-2443

News & Weather

KNAU 90.3 (800)532-5628



Arizona Highway Information511

or (888) 411-ROAD or www.az511.gov

Accessibility

Programs, services, and facilities that are fully or partially accessible to persons with physical disabilities are noted in *The Guide* by the following symbol: Wheelchair accessible with assistance.

Day-Use Wheelchairs

The National Park Service provides temporary day-use wheelchairs at no charge at the Visitor Center at Canyon View Information Plaza.

Temporary Parking

To obtain a permit for designated parking, inquire at the entrance gate, Verkamp's Visitor Center, the Visitor Center at Canyon View Information Plaza, Tusayan Museum, or hotel transportation desks.

Wheelchair Accessible Bus Tours

Wheelchair-accessible bus tours are available by prior arrangement. Contact any lodge transportation desk or call (928) 638-2631 for information. TTY phones are available to hotel guests in the park.

Accessibility Guide Available

The Grand Canyon National Park Accessibility Guide is available upon request at the Visitor Center at Canyon View Information Plaza, Verkamp's Visitor Center, Kolb Studio, Tusayan Museum, Desert View Information Center, Park Headquarters, and park entrance stations.

Computer Access

Public Access Computers

Library in the Park Headquarters building. Open 8:00 a.m. to 5:00 p.m., Monday–Friday. No charge.

Community Library off Navajo Street, behind the garage.

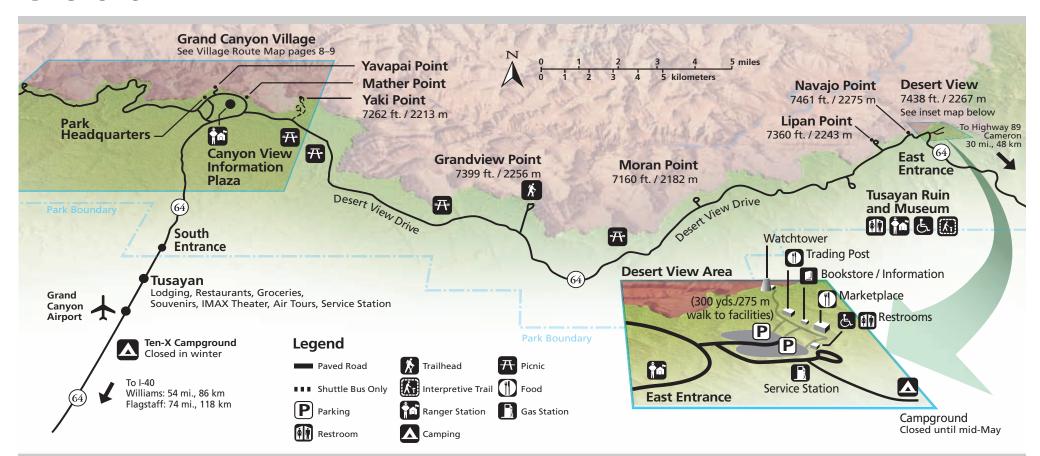
Open 10:30 a.m.-5:00 p.m. Monday-Friday and 10:30 a.m.-4:00 p.m. Saturday. \$3.00/half hour if no library card.

Wi-Fi Access

Library and patio at the Park Headquarters building.

Lobbies of all South Rim lodges.

South Rim



Bookstores



Supporting the Park since 1932

When you shop at Grand Canyon Association (GCA) bookstores, your purchase supports Grand Canyon National Park. GCA is a nonprofit organization created in 1932 to cultivate knowledge, discovery, and stewardship for the benefit of Grand Canyon National Park and its visitors. Since then, GCA has provided more than \$29.2 million in financial support. For GCA bookstore locations, see page 3.

When you visit our bookstores, ask how you can support Grand Canyon National Park's educational programs and scientific research by becoming a member of the Grand Canyon Association. In addition to supporting the park, you will receive a 15% discount at all GCA bookstores, including our online bookstore at www.grandcanyon.org.

Member discounts are also available for most classes offered by the Grand Canyon Field Institute, GCA's outdoor education program. For more information about GCFI, visit www.grandcanyon.org/fieldinstitute.

Teachers can take advantage of GCA's *Travelin' Trunk* program, which brings the Grand Canyon to your classroom. For more information contact (800) 858-2808 ext. 7142 or outreach@grandcanyon.org

Shop online: www.grandcanyon.org or call toll free (800) 858-2808, ext 7030.

North Rim



The average distance across Grand Canyon "as the raven flies" is ten miles. However, getting from the South Rim to the North Rim by automobile requires a five-hour drive of 215 miles.

During winter months, highway AZ 67 to the North Rim entrance is closed due to snow. Lodging and camping are available at the canyon's North Rim from mid-May through mid-October. Reservations are strongly recommended. Winter facilities are available at Jacob Lake.

A separate issue of *The Guide* is published for the North Rim and includes details about facilities and services, as well as program and hiking information. Inquire at the visitor center at Canyon View Information Plaza on the South Rim. The North Rim issue of *The Guide* for the 2009 season will not be published until May, 2009.

Desert View Services

Chevron Service Station	24-hour credit-card access year round	
Desert View Marketplace	Open Daily	9:00 a.m5:00 p.m.
De alectore / Doult Information	On an Dailer	0.00 a 5.00
Bookstore / Park Information	Open Daily	9:00 a.m5:00 p.m.
Trading Post Snack Bar	Open Daily	9:00 a.m4:00 p.m.
8	· · · · · ·	
Trading Post Gift Shop	Open Daily	9:00 a.m5:00 p.m.
W 1	0 7 11	0.00
Watchtower Gift Shop	Open Daily	9:00 a.m.–5:00 p.m.
Watchtower Stairs	Open Daily	9:00 a.m4:30 p.m.
waterite wer starts	open buny	7.00 u.iii. 1.30 p.iii.
Desert View Campground	Closed	Re-opens in May.

National Park Service U.S. Department of the Interior

Grand Canyon National Park

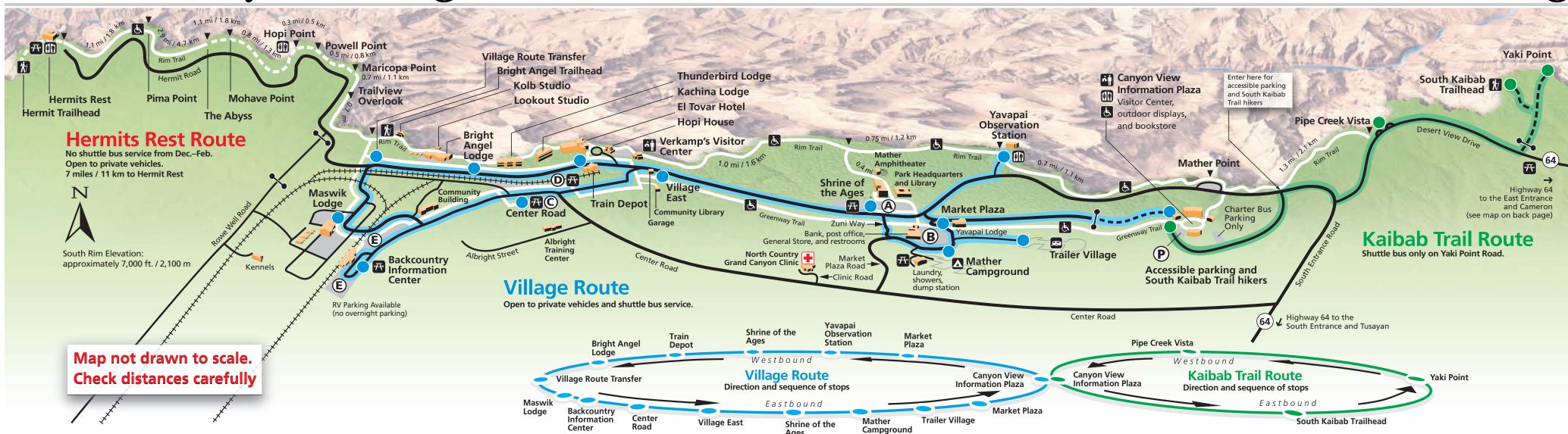
Post Office Box 129, Grand Canyon, AZ 86023

For the latest information updates, visit Grand Canyon National Park's website at: www.nps.gov/grca/

The Guide is published by Grand Canyon National Park in cooperation with the Grand Canyon Association. Printed by Arizona Daily Sun on recycled paper using soy-based inks.

EXPERIENCE YOUR AMERICA

Grand Canyon Village Shuttle Bus Routes, Points of Interest, and Parking



Legend



Free Shuttle Buses



During winter at Grand Canyon National Park, free shuttle buses operate on two routes: Village Route (blue) and Kaibab Trail

Route (green). No tickets are required, and bus stops are clearly marked throughout the park by signs with the above symbol.

Buses may be white or white with a green stripe. The route is indicated by a colored square near each door. Many buses also display the route name on the front of the bus.

Pets are not permitted on buses.

Shuttle service may be suspended during inclement weather.

Note: Sunrise and sunset times are listed on page 5.

Hermits Rest Route



The Hermits Rest Route does not operate during the winter. Hermit Road is open to all vehicles during December, January, and February.

This narrow road winds seven miles past numerous overlooks to Hermits Rest. It may be closed during inclement weather. Watch for hikers and bicyclists along the road.

No shuttle bus service on the **Hermits Rest Route from December through February.**

Village Route



Buses provide transportation between Canyon View Information Plaza, Yavapai Point, hotels, restaurants, campgrounds, parking lots, and other facilities in the Village area.

This is not a scenic route, but rim views are available a short walk from many stops.

60 Minutes Round Trip (without getting off bus)

December-February

- 6:15 a.m.–8:00 a.m. buses run about every 30 minutes.
- 8:00 a.m.-6:00 p.m. buses run about every 15 minutes.
- 6:00 p.m.–9:00 p.m. buses run about every 30 minutes.

Kaibab Trail Route

Buses provide transportation between Canyon View Information Plaza, South Kaibab Trailhead, Yaki Point, and Pipe Creek Vista. This is the shortest scenic route.

30 Minutes Round Trip (without getting off bus)

December-February

- 6:15 a.m.-5:00 p.m. buses run about every 15 minutes.
- 5:00 p.m.–7:15 p.m. buses run about every 30 minutes

Hikers' Express



An early morning Hikers' Express leaves from Bright Angel Lodge shuttle bus stop, the Backcountry Information Center, and Canyon

View Information Plaza, and goes directly to the South Kaibab Trailhead daily at 8:00 and 9:00 a.m.

Rules of the Road

Motorist Warning Pedestrians have the right of way.

Vehicles must stop for pedestrians n crosswalks. It is the LAW.



Pedestrian Warning Avoid walking on narrow park roads. Use trails that parallel most

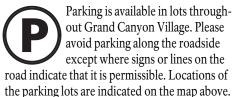
park roads. Always face traffic.



ed on all other trails, including the Rim Trail. Bicyclists must obey all traffic regulations. Always ride single file with the flow of the traffic. See and be seen: wear bright colors and a helmet.

On the narrow Hermit Road bicyclists should pull to the right shoulder and dismount when large vehicles are attempting to pass. Never hang onto a shuttle bus while riding. The new Greenway Trail segment between The Abyss and Hermit Rest provides a bicycle path away from the road.

Parking



(A) Near Park Headquarters (administrative offices). A large lot that frequently has available spots.

(B) Near the businesses in Market Plaza. This is the largest lot, but tends to fill early.

(C) This small lot near the intersection of Center and Village Loop Roads may have sites when others

(D) Unpaved lot along the railroad tracks in the middle of the Grand Canyon Village Historic District.

 (\mathbf{E}) Near the Backcountry Information Center. The southern portion of this lot has large, pull-through spaces for RVs and vehicles with trailers.

Easily accessible shuttle bus stops are located in or near all parking areas.

Accessibility



An accessibility permit, allowing access to some areas closed to public traffic, is available at entrance gates, the Visitor Center at Canyon View

Information Plaza, Park Headquarters, Kolb Studio, El Tovar concierge desk, and the Bright Angel Lodge, Yavapai Lodge, and Maswik Lodge transportation desks.

Visitors with mobility concerns will find designated parking spaces in most parking lots and near most facilities, including Mather Point. A parking lot on the south side of Canyon View Information Plaza offers accessible parking closest to the Visitor Center. Follow the signs from the main park road east of Mather Point to reach this parking area.