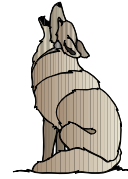


Expectations and Advice



Personal Safety:

We will spend most of the trip in remote areas far from medical help. Please take care of yourself and watch out for those around you. Let the staff know of any injuries or needs immediately.

Heat: Drink plenty of liquids (especially Gatorade-type drinks) and salty foods, and keep your hat on. If you get headaches, cramps, or feel dizzy, get to some shade and cool off. **Heat exhaustion** is indicated by cold clammy skin, disorientation, and general weakness. Lay down in the shade, apply a wet washrag, and drink sparingly. Lay off of vigorous activities for the rest of the day.

If you miss or ignore the signs of heat exhaustion, it can quickly lead to **heat stroke**, a life-threatening emergency. The signals of **heat stroke** include red, hot, dry skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing. You must cool the victim immediately, and keep an eye out for breathing problems. Get medical assistance as soon as possible.

Seat Belts: You and the driver of the van are liable if you are caught without them. For your own safety and also out of courtesy to your driver, please keep them on whenever the vehicles are moving.

Hiking Safety: Many of our hikes are across open country, and sometimes in fairly dangerous terrain. Always hike in groups of three (if one is hurt, another can attend to him/her while the third goes for help). Don't do anything that you are uncomfortable with, i.e. climbing steep rocks, etc. If you don't have a map or can't read one, stay with someone who does and can.

Snakes and Scorpions: Rattlers are overrated as a wilderness danger (about 8,000 bites, but only 10 fatalities, occur each year in the U.S.), but we have seen several over the years (no one has ever been bitten yet). If you are bitten, stay calm, wash and immobilize the bitten area and seek help. If there are signs that poison has been injected, and medical help is more than 30 minutes away, than consider using a snakebite kit to suction the wound. Few scorpion species are actually deadly, and most stings are about like those of a wasp. Wash the wound and apply a cold pack, and watch for signs of an allergic reaction.

Wilderness Ethics:

The lands we will pass through are sacred, and worth protecting. These wonders of nature have suffered abuse in the past, and face even worse abuses in the future. We must do all we can to minimize the effect of our presence in these wilderness areas. We have managed to maintain a good rapport in our dealings with park officials, locals and others over the years, and this is kind of unusual for college level geologists. Please help us keep our reputation intact!

Rocks, Fossils, Minerals and Artifacts: We will have numerous opportunities to collect many kinds of beautiful and interesting specimens. But **please don't collect from national parks and monuments**. It is illegal, and unsporting. Human artifacts are absolutely irreplaceable, and should never be collected, even outside of any parklands. Leave them for others to enjoy or study. Where rock or fossil collecting is legal, please take only as much as you feel you need.

Trails: Most parks do not have adequate funds for park upkeep, so trails often cannot be maintained. Please do not cut switchbacks, take shortcuts, or knock rocks off of trails. Please pick up any trash that you see.

Camp Facilities: Again, maintenance budgets are tight, so please make every effort to keep the camps we stay at in good condition. Pick up any garbage or trash, and haul wash water to the bathrooms instead of dumping it onto the ground.

Personal Sanity!

Please keep quiet in camp after 10:00 or so. You will be expending huge amounts of energy every day, and you will need the sleep. The next day starts very early.

We cannot stop at every single landmark, and some remarkable scenery will pass by the van windows every day. **Stay awake during the day!** Follow the road guides whenever possible, and ask questions about the things that you see. This will enrich your trip considerably.

When we arrive at gas stations, all persons in the van need to offer to pump gas, wash the windows and dump the garbage cans and recycle bin. Be prompt about visiting bathrooms and making purchases. Your driver is a volunteer; please ask if you can help them out whenever possible.

When we arrive at our camp for the night, gather together first for announcements. After selecting and setting up your campsite, KP dinner crew should check in with the cook staff to unload vans and prepare the cooking area.

Please keep your appointments with K.P. duty. If you really want to be somewhere else, than trade with someone and make sure they show up. And please, practice **good sanitation** at all times. When the KP cleanup crew is called, start the wash water on the stoves and enjoy your meal before everyone else.

Upon arising in the morning, **please pack your gear first,** then make breakfast and lunch. **Everybody needs to help load the gear into the vans.** An early start means no missed adventures!

Toilet Facilities (or lack thereof): Please remember that we will often be in the wilderness with no facilities to speak of. Be mentally prepared to take care of business behind bushes and the like (and always have a supply of toilet paper!).

Everyone goes through moments of depression and grouchiness. Remember the adage of doing unto others as you would have them do unto you. Give those folks their space, but be supportive, too. If there are problems, talk to me or the other staff members. Bad hair days? Well, there's nothing much we can do about that. . .

Last Minute Reminders:

We are meeting to pack the vans the DAY BEFORE our departure date. Please bring your gear to the north side of the new Science Community Center on West Campus of MJC, near the Science Building on **Friday, June 14, between 2:00 and 4:00PM.** Bring any gear you will not need overnight.

Parking overnight at MJC will almost surely lead to vandalism of your car, and a possible ticket and towing, so make arrangements to park elsewhere (let us know if you are coming from out of town; you can park at someone's house who lives near campus).

We are scheduled to depart at 6:30AM, Saturday, June 15 at the same location as for the packing, the north side of the Science Community Center on West Campus. **Don't be late**, the earlier we get started, the more things we will see that day.

Although we are providing your food on this trip, we have NOT made arrangements for breakfast or lunch on the first day of the trip. Bring a sack of food, or a bit of cash for fast food in Mojave or Barstow. We are not providing sodas or energy drinks in cans. If you wish, you can bring a small ice chest to stow under your van seat.

What do you need to know before we leave?

We will be immersed in geology from the moment we leave until the moment we return home. Your enjoyment and understanding of the wonders that we will see will be much enhanced by some preliminary preparation. If you don't understand the following, borrow a basic textbook and learn it before we leave!

Important **minerals** that make up rocks: quartz, feldspar, mica, olivine, calcite, gypsum and clay

Igneous rocks: Granite, rhyolite, andesite, basalt, and gabbro

Sedimentary rocks: Conglomerate, sandstone, shale, and limestone

Metamorphic rocks: Slate, schist, gneiss, marble and quartzite

Plate Tectonics: Divergent, convergent and transform boundaries

Hot Spots

Volcanoes: Basalt plateaus, shields, composite cones, plug domes

Geologic Time Scale on the last page (This must be memorized before dinner on the first night of the trip).

Preparing Your Presentation

The secret of a good presentation is not charisma or a snappy sense of humor. The secret is in being prepared. The first step is to confer with me about your topic, for I may have most of the resources that you will need, and I can offer advice about the best way to proceed.

Gather your research material, and decide what elements are the most important to be communicated. It might be helpful to put the facts on index cards, so they can be arranged and ordered in the way that best communicates the information. You don't have to cover EVERYTHING!

A presentation might have the following order:

Write an outline of your talk on the chalkboard, or have it ready on a poster board or handout.

1. Geography and Overview:

Where are we? What is the name of the park or feature? (Elevations, interesting non-geological information (plants, animals, history, etc.) Give a brief introduction to the geology ("Say what you are about to say"). What makes the place unique? Is there a geological process or feature we haven't been able to see yet?

2. Geologic History:

Place your area in the regional context. What are the oldest and youngest rocks, and which ones are in-between? Are any important layers missing? Any formations that we haven't seen up to this point should be given special attention. Give an outline of the geological events leading up to the present day scenery.

3. Geologic Processes:

Some parks and monuments have been established for their unique erosional or tectonic features (volcanic eruptions, glaciers, etc.). Explain how these processes are acting in the present day. Use illustrations whenever possible. If you get them to me at least a week ahead of our departure, I can include illustrations in the trip guidebook. You may also prepare posters, or use the chalkboard.

4. Summary

Say what you just said as concisely as possible. Ask if there are any questions.

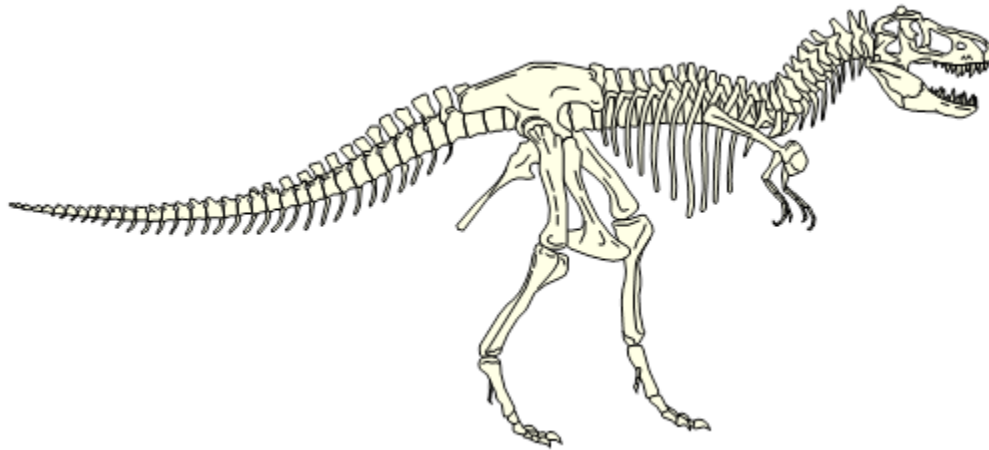
Don't Panic! You will survive!!

Equipment List

Sleeping Bag
Ensolite Pad and/or cot
Ground Cloth
Tent (small, compact, may share with a friend)
Day Pack
Small Beach Chair
Duffle Bag or Suitcase
Non-disposable Water Container(s); 64 oz. total
Pocket Knife
Flashlight with extra batteries and bulb
Notebook
Sketch Pad
Writing and Drawing utensils
Towel and Washcloth
Toilet Paper and Kleenex
Poncho
Sunscreen-SPF 30 or higher
Bug Repellent
Small Ice Chest or Insulated Bag
Personal Items: soap, shampoo, lip balm, toothbrush and paste, deodorant, etc.
Mess Kit: plate, bowl, utensils, unbreakable mug/Sierra cup

Clothing: 3-4 day supply

Short-sleeve and Sleeveless T-shirts	Shorts
Long-Sleeved Shirts	Long Pants
Socks (extras for hiking too)	Underwear (extras for bedtime)
Sturdy Hiking Boots or Athletic Shoes	
Comfortable "in camp" Shoes/Sandals	
Jacket	
Swim suit	



Spending Money (for showers, laundry, snacks, souvenirs, books, etc.)

Field Trip Emergency Information

Full Name(and nickname?) _____

Address: _____ Zip: _____

Phone (home): _____(cell): _____

E-mail (the one you check often for messages!) _____

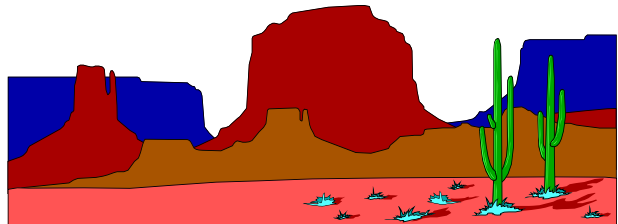
Whom do we notify in case of emergency? _____

Medical Allergies _____

Medications (those you are taking or may use occasionally)

Special Medical Conditions _____

Date of Last Tetanus Shot _____



Eras (give yrs) (within Phanerozoic Eon)	Periods	Epochs	
Cenozoic	Quaternary	Holocene – 12,000 to present	
	2 my	Pleistocene	
	Tertiary		Pliocene
			Miocene
			Oligocene
			Eocene
			Paleocene
Mesozoic	Cretaceous	65 my	
	Jurassic		
	Triassic		
Paleozoic	Permian	251 my	
	Pennsylvanian		
	Mississippian		
	Devonian		
	Silurian		
	Ordovician		
	Cambrian		
Proterozoic Eon 2,500 – 545 my Archean Eon Hadean Eon		542 my	