Philmont Scout Ranch
17 Deer Run Rd.
Cimarron, NM 87714

Official Philmont Shakedown Guide – Part 2

Revised: September 1st, 2017
Refer to Philmont's website: www.philmontscoutranch.org for updates to this guide and the most up-to-date information regarding your trek.

This guide is intended to be an all-encompassing tool for crews to utilize in order to prepare for an upcoming Philmont trek. It is highly recommended that crews participate in at least two shakedown hikes prior to their trek. To help facilitate this, we have split this guide into two separate documents to allow the crew to focus on different topics on each hike.

In this second part of the guide, we will cover advanced Philmont-specific outdoor skills, Leave No Trace, the stages of group dynamics, additional conditioning recommendations, and the events of your arrival day at Philmont.

Advanced Outdoor Skills

To help your crew be more prepared for your Philmont trek, this section will cover more Philmont-specific skills than the first part of the guide.

First Aid – There are many different first aid situations that your crew may experience while on the trail. Taking the required Wilderness First Aid and CPR certifications will help you to be prepared for the most common injuries and ailments, such as dehydration, blisters, heat injuries, altitude illness, and musculoskeletal injuries.

- **Dehydration**
  - Prevent: Drink plenty of water and sports drinks during strenuous hiking and hot/dry weather - a hiker will need to drink several liters a day. Alternating between water and sports drinks will help to replace important electrolytes as well as fluids lost during strenuous hiking.
  - Recognize: Headache, fatigue, and nausea are early signs of dehydration. More severe signs of dehydration may include dizziness, vision changes, difficulty walking and altered level of consciousness. If a patient is unable to keep down adequate amounts of fluid, then advanced medical care may be required.
  - Treatment: It is important to begin treating dehydration as soon as you recognize the symptoms. Prevent the dehydration from becoming worse by resting and staying out of the heat. Rehydrate with water or half-strength sports drink; full strength sports drinks may cause upset stomach in an already nauseated patient, but a half strength sports drinks will still provide needed electrolytes for the dehydrated patient.

- **Blisters**
  - Prevent: Blisters are caused by the heat resulting from friction and rubbing between the shoe and the foot. Wearing well broken in boots and good fitting, clean hiking socks will prevent friction and blisters. Hikers should recognize a "hot spot" and take steps to treat them before they become blisters.
  - Recognize: Blisters are areas of irritated and painful skin, where fluid and blood begins to collect and can be very painful.
  - Treatment: If a blister forms, do not pop or drain it. Use moleskin to create a cushion to protect the blister by cutting a hole in the middle of the pad slightly larger than the blister. Place the moleskin over the affected area so that the blister is surrounded by the bandage but not covered. This will reduce the friction between the blister and the sock, preventing the blister from getting any larger. If the blister pops on its own, make sure that the area stays clean and covered and watch for signs of infection.



- **Heat Related Illness**
  - Prevent: Philmont's dry desert climate can reach temperatures above 100^{o} F, and drop close to freezing temperatures at night in higher elevations. It is important that hikers at Philmont be prepared with appropriate equipment and anticipate the potential for extreme temperatures. When high heat is anticipated avoid hiking in the heat of the day, and take frequent breaks, avoid wearing dark or tight fitting clothing, and stay hydrated.
  - Recognize: Signs of heat illness can vary widely from profuse sweating, red skin, elevated temperature, and irritability, to more severe symptoms such as altered level of consciousness, and seizures.
  - Treatment: Sit down in shade and hydrate with half-strength sports drink to replenish fluids and electrolytes. If heat exhaustion is treated appropriately, heat stroke will not occur. Heat stroke, a life-threatening condition, is when a person's body temperature gets too high and the body can no longer cool itself. Heat stroke patients may exhibit an altered level of consciousness, have seizures, and die if not treated quickly.

- **Acute Mountain Sickness**
  - Prevent: Philmont Scout Ranch is located at elevations between 6,500 and 12,500 feet. This is a higher elevation than most of the U.S. and it is not uncommon for participants to feel the effects of altitude in their first few days at Philmont. Altitude symptoms can be prevented by ascending to altitude slowly. Participants traveling from low elevations may benefit by spending an extra day at altitude (Colorado Springs for example) on the way to Philmont. It is important to stay hydrated, eat a balanced diet, and get plenty of rest to allow your body to adjust to the altitude.
  - Recognize: Symptoms of acute mountain sickness can vary but generally consist of a headache, nausea, and feeling lethargic. Some people report insomnia and loss of

appetite. In more severe cases of altitude illness, patients may experience shortness of breath at rest or change in level of consciousness.
    - Treatment: The best treatment for altitude illness is descending to a lower altitude and allowing time to adjust. Symptoms may also be treated by staying hydrated and taking an over the counter pain medication.

- **Ankle and Knee Injury**



    - Prevent: Philmont trails are often rough and rocky. It can be easy to slip, fall, and injure an ankle or a knee when carrying a large backpack. When hiking, it is important to watch where you are going, avoid horseplay, and wear mid- to high-top boots that provide ankle support.
    - Recognize: It is not uncommon for a hiker's ankles and knees to be sore after a long day of hiking, but it is important to recognize when it is more than soreness and may be an injury. Signs of a possible injury include deformity, swelling, discoloration, and an inability to take more than four steps without severe pain.
    - Treatment: For the treatment of most ankle and knee injuries remember the acronym R.I.C.E. This stands for Rest, Ice, Compression, and Elevation. Following the R.I.C.E. method helps to reduce pain and swelling of the injury. If the ankle is injured, keep the boot on to help prevent swelling and splint the ankle to immobilize it. For a knee injury, splint the leg from the thigh to the calf, in the most comfortable position for the patient.

Weather – There are five life zones found at Philmont: high desert plains, foothills, montane, sub-alpine, and alpine. Here is a general guide to adapting to Philmont's weather patterns and our environment:

- **High Desert Plains**



    - From Philmont's lowest elevations (6,500 ft.) to approximately 7,500 ft.
    - This area is easily recognizable by the abundance of native grasses, scrub oak, sage brush, yucca plants, cottonwood trees, and the occasional ponderosa pine
    - During the summer, daytime highs can get into the upper 90's/low 100's and overnight lows can drop to the mid 50's
    - Water and shade can be scarce in this region. It is highly recommended that crews wake up early and hike to their destination before the heat of the day sets in.

- **Foothills**



  - From 7,500 ft. to 8,500 ft.
  - Characterized by large ponderosa pine forests with scrub oak underbrush
  - Daytime highs in the mid 90's and overnight lows into the high 40's are possible in the summer months
  - Water becomes easier to find than in the high desert plains but you should still fill up all of your water capacity whenever you have the chance

- **Montane (Spruce-Fir Zone)**



  - From approximately 8,500 ft. to 10,000 ft.
  - Recognized by the abundance of wildflowers, streams, Douglas fir, blue spruce, and aspen trees.
  - During the summer, daytime highs will approach the upper 80's and overnight lows will drop to the mid 40's
  - Since most of this region is located on the east side of the Cimarron Range of the Sangre de Cristo Mountains, and since storms almost always move in from the west, it can be difficult to see weather patterns coming in over the mountains until the system is right above you.
  - Longer periods of rain (up to a week) can engulf this region especially during the monsoon season from late-June/early-July to early-August. Good rain gear and a fleece jacket will help with staying dry and warm during these weather patterns.

- **Sub-Alpine**



  - From 10,000 ft. to approximately 11,500 ft.
  - Recognized by a decrease in tall vegetation
  - Other than grasses, the only substantial plants that grow in this zone are Bristlecone Pines and Limber Pines.
  - Daytime highs in the low 80's to overnight lows in the upper 30's can be common in the sub-alpine zone.
  - Storm systems form quickly and water can be scarce because of the elevation. If camping at a trail camp in this zone, most crews cook their dinner meal for lunch at a lower elevation and eat their dry lunch for dinner to save on water.

- **Alpine**



  - From 11,500 ft. up
  - This region is recognized by a significant decrease in the amount of vegetation. Grasses are typically the only plants that grow in this zone although the occasional bristlecone pine can be spotted above tree line.
  - Daytime highs in the mid 60's to overnight lows in the low 30's are typical for this region in the summer.
  - Weather systems can form extremely quickly and often times without warning in this zone. It is highly recommended that crews wake up early and hike through alpine areas by noon to avoid getting caught in a lightning storm without the protection of trees.

Philmont experiences different weather patterns depending on the time of year. In June, we normally receive very little precipitation and daytime highs can reach as high as 100°F with single digit humidity. The monsoon season hits northeast New Mexico between late-June and early-July and will stay until early-August most years. The monsoon season is characterized by large thunderstorms that build throughout the morning and bring rain, hail, and lightning in the afternoon. Usually the rain, hail, and lightning last anywhere between 45 minutes and two hours then the skies clear up and temperatures rise again. Regardless of the time of year of your trek, it is recommended that crews always bring adequate rain jackets and rain pants, a good fleece jacket, and a stocking cap. Staying well hydrated is another key to having a successful trek, even in colder, rainy weather when hikers often forget to keep drinking water.



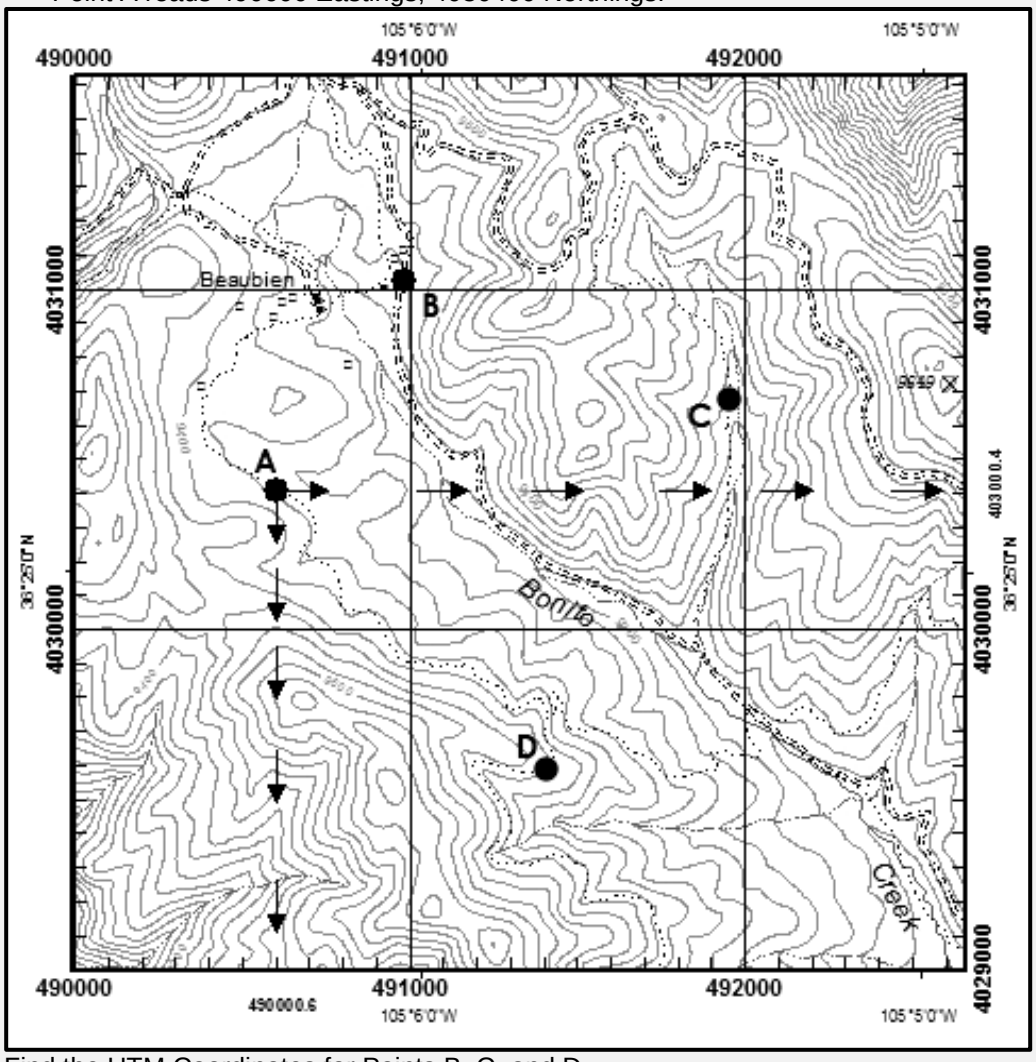
As mentioned earlier, the lightning danger is very high at Philmont. A crew should count the amount of time that passes between when lightning is seen and thunder is heard. If the time is 30 seconds or less, you should already be in safer terrain. If you determine that the safest thing for your crew to do is to go into the lightning position, first space out 30 feet between crew members so that if someone on one side of the crew is struck, someone from the other side can come over to perform CPR. Once you have spaced out, keep your feet together to minimize the risk of being affected by ground current. Then crouch down (while keeping your feet together) to minimize the chances of a direct strike. Lastly, if you feel that a strike is imminent, cover your ears and close your eyes. Remember to keep an eye on the rest of your crew, stay in wooded areas, and never stand near the tallest object.

In 2012, Philmont began recording rainfall and temperature readings at each staffed backcountry camp. Once you know your itinerary, refer to the spreadsheets on our website (below) if you want a more accurate idea of what weather to expect camp-to-camp:
http://www.scouting.org/Philmont/Camping/~/link.aspx?_id=566FDAD4373F47B2A15F59F5CE874521&_z=z

Navigation – Universal Transverse Mercator (UTM) coordinates are very helpful when using a map, compass, or GPS. UTMs are based off a metric grid system and allow you to accurately pinpoint your current location or the location of a distant goal. In North America, we use eastings and northings. Think of them like an X, Y axis. The eastings are your X and the northings are your Y. Always read out the eastings first and the northings second. Make sure to always orient your map before working with UTMs. At Philmont, UTM trail signs are used so that you can accurately pinpoint your location on the map then decide which trail to take. Becoming familiar with UTM coordinates and how to read them will greatly assist your crew in route finding on your trek. Use the exercise below to practice using UTMs:

To report the coordinates of point A on the map:

- Follow the vertical arrows to the edge of the map: 490600 (Eastings).
- Follow the horizontal line to the edge of the map: 4030400 (Northings).
- Point A reads 490600 Eastings, 4030400 Northings.



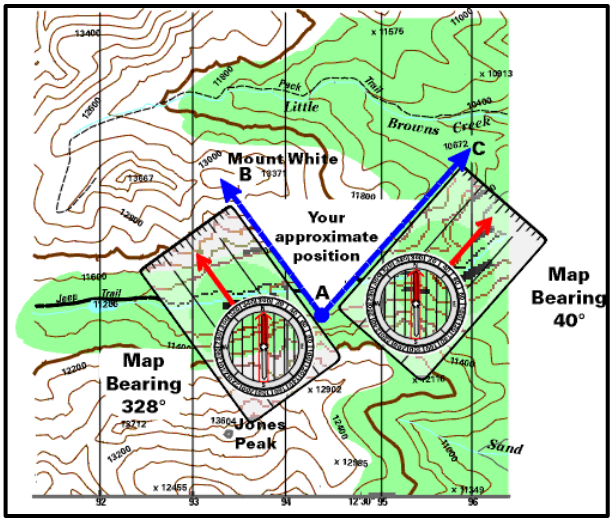
Find the UTM Coordinates for Points B, C, and D.

Point B:

Point C:

Point D:

Triangulation is another skill that can be useful in the backcountry. To triangulate, orient the map then find recognizable landmarks on the map that you can see from your current location. Shoot a bearing to your first recognizable landmark and rotate the dial so that the "shed" is over the red end of the needle. Place the corner of the compass on the landmark on the map and pivot the compass around that landmark until the red needle is in the "shed". Use a pencil to draw a straight line along the edge of the compass and continue to the edge of the map. If you are on a trail, then the line should intersect the trail that you are on and your position is at that intersection. Find two other landmarks and repeat the process: you are somewhere in the triangle formed by these three lines. To be more accurate, take more bearings and trace them onto the map.



For additional resources on navigation, refer to the *BSA Fieldbook* and *Orienteering Merit Badge Book*.

Hygiene – A Scout is clean. It is extremely important that backpackers stay clean and healthy in the backcountry. The dirtier you become, the more likely it is that you will become sick, get an infection, or sustain an injury. The best ways to stay clean on the trail include: changing clothes regularly (especially socks and underwear), brushing your teeth, taking showers whenever possible, washing clothes whenever possible, washing your hands after using a latrine, washing and sanitizing your hands before each meal, and properly washing, rinsing, and sanitizing your dishes. Although a few backcountry camps have showers, you can have a "bandana bath" at any campsite. Simply get a wet bandana and a drop of Campsuds and wash yourself off at the sump. Remain clothed at all times to keep in compliance with youth protection and make sure to dispose of all waste water at the sump. To help your crew stay clean and healthy, Philmont now approves the use of clotheslines during daylight hours so that you can efficiently dry your clothes after you wash them. Remember to remove the clotheslines at dusk to prevent someone from walking into them at night. It is important to regularly wash clothes that touch the skin, i.e. socks, underwear, and shirts. Wearing the same dirty clothes day after day can lead to serious problems. For example, if you wear the same socks four days straight, your chances of getting a severe blister are much greater, making your trek much more difficult.

Leave No Trace

There are seven principles of Leave No Trace outdoor ethics. Here are the principles and some tips to ensure they are met while on your trek:

- **Plan Ahead and Prepare** – Knowing the rules and regulations outlined in this guide is a good start to being prepared for your trek. Each night as you are waiting for the water to boil for dinner, it is a good idea to start looking over the map for the next day's hike. Look for which trails to take, elevation gain, water availability, which camps you will pass through, etc. to get a clear picture of what the day should look like. Proper preparation will allow your crew to get to camp quickly while optimizing your time and program opportunities along the way.

- **Travel and Camp on Durable Surfaces** – Philmont practices concentrated impact camping and has roughly 360 miles of maintained trails, 36 staffed camps, and 86 trail (unstaffed) camps. Hiking and camping on our established trails and campsites (except where they do not exist in the Valle Vidal of the Carson National Forest) allows us to preserve the 99% of land we do not impact. Please follow switchbacks and avoid creating social trails through meadows or riparian areas.
- **Dispose of Waste Properly** – Every staff camp other than Black Mountain and Crooked Creek accepts consolidated trash. They also collect plastic meal bags, shiny food wrappers (Terracycle), and paperboard for recycling. Liquid food waste should be poured down the sump and solid food waste should be packed out as trash. Human waste is concentrated into pit-style latrines.
- **Leave What You Find** – From elk sheds to wildflowers to artifacts; a typical crew will find a variety of items left by the people and animals that have made their home at Philmont over the years. You must only photograph these items and leave them for other crews to enjoy. Anything made by humans that is over 50 years old is considered an artifact and should be left undisturbed. Report anything noteworthy to the next staffed camp you hike through and give them the UTM coordinates so that we may look at it for further investigation.
- **Minimize Campfire Impacts** – As mentioned in Part 1 of this guide, campfires should be kept small. Sticks used as fuel should be no wider than your wrist and no longer than your forearm. Always keep a full pot of water near the fire ring when a campfire is burning. Stir up the coals with a stick and pour water over the coals to ensure the fire is “out cold” before going to bed. When campfires are allowed at Philmont, it is important to dispose of the ashes properly. In the morning as you are ready to leave your campsite, pack the ashes into an empty meal bag and hike them 30 minutes outside of camp then spread the ashes 100 ft. off the trail. This keeps our campsites clean and ready to use for the next crew.
- **Respect Wildlife** – Philmont’s fauna is varied and includes black bears, mule deer, mountain lions, rattlesnakes, hawks, elk, falcons, cutthroat trout, chipmunks, hummingbirds, raccoons, bighorn sheep, and porcupines, just to name a few. We need to respect these animals by never approaching, throwing rocks, or feeding them. Simply give them distance and let them go about their way. Always hang your smellables up in the bear bags and never leave smellables unattended. Remember, it is common for the quietest crews to see the most wildlife.
- **Be Considerate of Other Visitors** – With 4,500 people in Philmont’s backcountry at any one time, it is very important to remain respectful towards those around you. This includes not yelling or singing loud songs along the trail or in camp, not writing graffiti, not talking on the cell phone on the summit of mountains, etc. Additionally, highlighter-colored shirts are frowned upon in the backcountry setting, as the bright colors are an eyesore and distraction from the beautiful scenery you will encounter.

Group Dynamics

Every crew undergoes a transformation during their trek as they move through the four stages of group dynamics: forming, storming, norming, and performing. Some crews move through these stages quicker than others: just because a crew is at a certain stage does not mean the crew cannot revert back to a previous stage. The key to anything relating to group dynamics is communication. Doing Roses, Thorns, and Buds every night before bed is a great way to hear everyone out and discover crew issues to address before they blow up out of control.

- **Forming** – The first stage, recognizable by excitement and the hidden fears of crew members not knowing what comes next. Crew members may still be getting to know one another and people will be hesitant to come out of their shell. The members within a crew should ask their p basic “get to know you” questions in order to find similarities and common ground. This is especially true for crews consisting of youth from multiple home units.
- **Storming** – The second stage, occurring when people begin to come out of their shell and do not sugar coat any communication as they did in the forming stage. Different personalities begin to clash and conflict usually arises. For some crews this stage takes about a half hour to get through, for others it can take days. The best way to learn from this stage and move on to the norming stage is through good and honest communication. The basic “get to know you” questions from the forming stage can be vital to the transformation in this storming stage because the crew can find similarities amongst themselves and can build off of that rather than be torn apart by their differences.
- **Norming** – Once the crew gets all the kinks out of the system, they move on to the norming stage and begin to set the groundwork for the rest of the trek. Personal goals that may have been chosen earlier in the trek need to be revisited now that everyone has a clearer picture of what their trek is like. Once everyone’s personal goals are set, the crew needs to determine crew goals that meet the expectations of every crew member and how they will work towards them. It is best to come to a consensus when determining crew goals since people generally support ideas they helped create.
- **Performing** – All the crew members are comfortable around each other and know their specific role within the crew. Everyone knows the crew goals and how to achieve them. Trust is exhibited throughout the crew and efficiency is at its peak. Constant communication and a servant leadership demeanor are demonstrated by all members within the crew.

Physical Preparedness

Hopefully each crew member has been exercising on a regular basis, at least three times a week for no less than an hour each session. If they have not, try revisiting the *crew member contract* that was discussed in part one of this guide. Once you have built up your aerobic/cardiovascular ability, weight lifting is a good next step to build strength needed for hauling a 45- to 55-pound pack around rugged mountainous terrain. Some core exercises include crunches and sit-ups: doing these for 20 minutes three times a week will help you get into great shape for your Philmont trek. Push-ups are a great upper body workout and will help you have a well-balanced exercise regimen when combined with the lower body and core exercises we have already discussed.

Your Ranger will introduce you to the Trail of Courage program, a personal health initiative sponsored by the BSA. The Trail of Courage’s purpose is to promote healthy lifestyles that you can take with you beyond your Philmont trek. A well-rounded exercise regimen combined with a healthy diet will go a long way – what better time to start than in preparation for your Philmont trek? Additionally, make sure to consult with your doctor before starting a new exercise program.

First Day at Philmont

The first day of your trek is very busy with many Base Camp stops to ensure you are all set and ready for the backcountry. The general order of the first day is as follows:

- **Arrive at the Welcome Center**
  - The earlier the better. Typically, crews that arrive before 10:00am get through the Base Camp procedures in one day.
  - Crew Leader and Lead Advisor check-in and receive tent assignments
- **Meet your Ranger**
  - Your Ranger will be waiting for you at the Welcome Center and they will meet your crew right after you are done getting checked in.
  - Your Ranger will be with you the entire day, guiding you through the Base Camp process to ensure you are ready to hit the trail the following day.
  - He or she will go out into the backcountry with you for two nights and teach you everything you will need to know about having a safe and enjoyable Philmont trek.
- **Drop off gear at your tents**
  - Your Ranger will instruct everyone to bring water, raingear, and prescription medications with them through the rest of the stops in Base Camp.
  - The Lead Advisor needs to bring the crew roster, medical forms, payment paperwork, and Wilderness First Aid and CPR certifications with them.
  - The Crew Leader needs to bring an unmarked overall map and their Crew Leader Fieldbook with them.
- **Crew Photo**
  - Extra photos can be purchased in the Camping Registration office
  - Can be taken in field uniforms or crew t-shirts
- **Camping Registration**
  - Ranger and Lead Advisor go inside while the rest of the crew waits outside the building
  - Any outstanding payments are made and certifications are checked
  - The crew roster is turned in
- **Outfitting Services**
  - Receive gear such as tents, bear bags, bear rope, pots, dining fly, etc.
  - Receive food for first few days of the trek
  - Purchase fuel needed for the trek
- **Medical Recheck**
  - All crew members review their medical forms with Philmont Infirmary staff member
  - Bring all prescriptions in their original containers to be reviewed at medical recheck for expiration date and dosing, this includes emergency medications such as EpiPens® and inhalers.
- **Mail Room**
  - Any gear that was shipped ahead of time can be picked up
- **Shakedown**
  - Your Ranger will run through a gear shakedown with your crew ensuring all necessary gear is taken on trail and all non-essential gear is stored in Base Camp.

- **Logistics Trip Plan**
  - Crew Leader and Lead Advisor will be called into Logistics and will receive information about campsites, trails, program opportunities, water availability, horse rides, etc.
  - The Crew Leader needs to bring an unmarked overall map and their Crew Leader Fieldbook with them.
- **Security**
  - Receive lockers if crew did not use personal vehicles for transportation.
- **Museums**
  - Take a tour of the Villa Philmonte, Kit Carson/Rayado, and the Historic Chase Ranch.
  - Sign up at the Philmont Museum and Seton Memorial Library.
- **Dining Hall**
  - Lunch is at 11:30am
  - Dinner is at 4:45pm
  - Breakfast the following morning is at 6:30am
- **Crew Leadership Meetings**
  - The Crew Leader, Chaplain's Aide, Wilderness Pledge *Guia*, and Advisors all meet at the Hardesty Casa Central at 5:45pm for their respective meetings.
- **Chapel Services**
  - Begin at 7:00pm
- **Opening Campfire**
  - Meet at the Welcome Center at 8:15pm
- **Depart Base Camp**
  - The first buses leave for the backcountry at 8:00am and the last buses leave Base Camp at 3:00pm.
  - Typically, a crew departs for the backcountry approximately 24 hours after they arrive at Philmont. The earlier you can arrive, the easier the first few days will be.

This two-part guide is an overview of how to prepare for a Philmont trek. If you have more questions or just want to get your daily dose of Philmont, check out our YouTube channel and watch videos describing additional Philmont procedures, programs, and opportunities. Your Ranger will teach you everything you will need to know to have a successful trek at Philmont but if your crew is in the proper physical condition, has the right gear, and is familiar with the Philmont way of camping ahead of time, the adjustment period over the first few days of your trek will be much easier. Enjoy the hiking and we will see you this summer!

Refer to Philmont's website: www.philmontscoutranch.org for updates to this guide and the most up-to-date information regarding your trek.

http://www.youtube.com/user/philmontscoutranch

Philmont Advisor Skills School & Philmont Advisor Workshop

Beginning in the fall of 2015, Philmont launched the Philmont Advisor Skills School (PASS) and Philmont Advisor Workshop (PAW) courses both at Philmont Scout Ranch in Cimarron, NM and in cities across the country. These courses are designed to better help you prepare for an upcoming trek and are taught by experienced members of Philmont's Ranger Department. To learn more about these courses and the future courses for the fall of 2017 visit: www.philmontscoutranch.org/pass