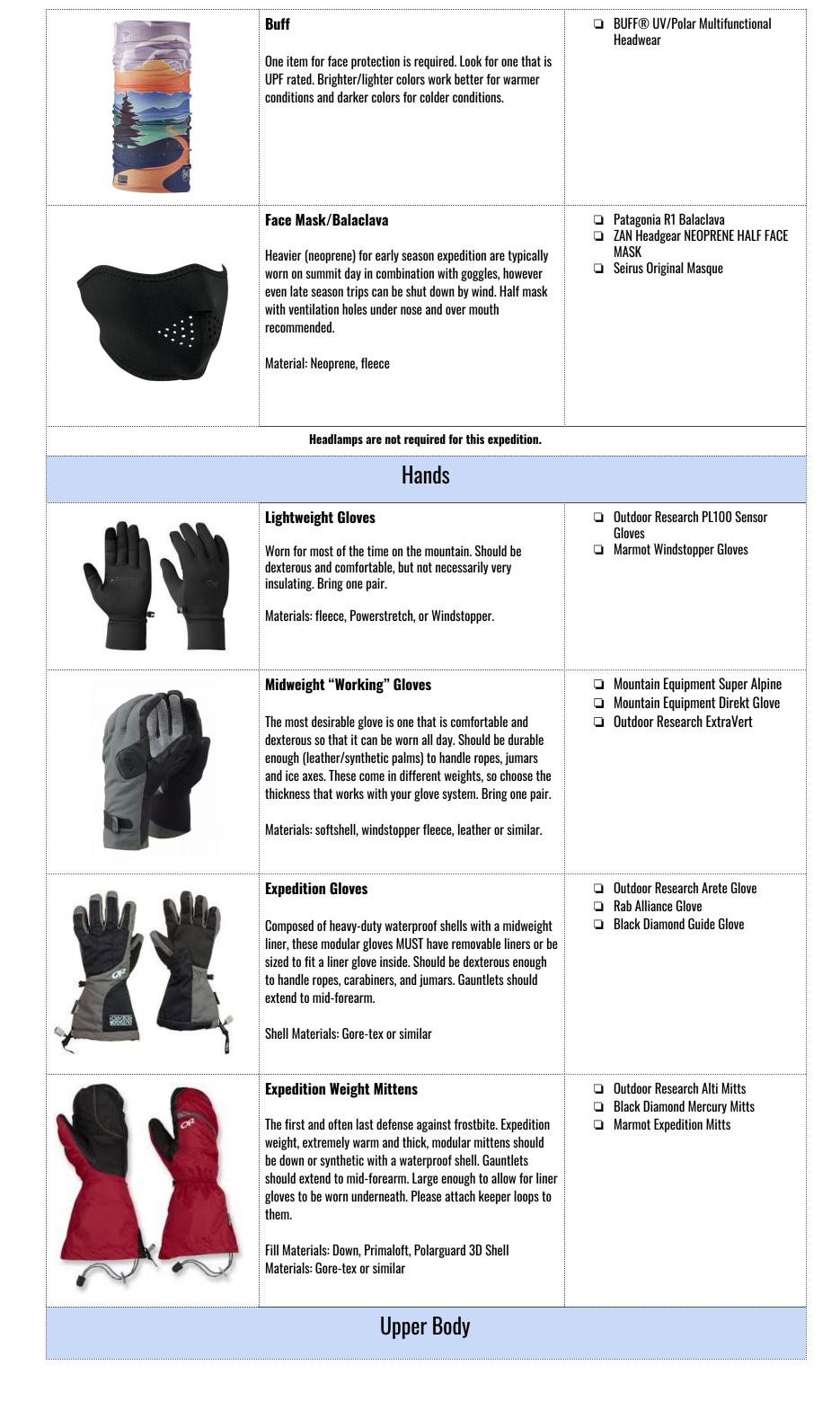


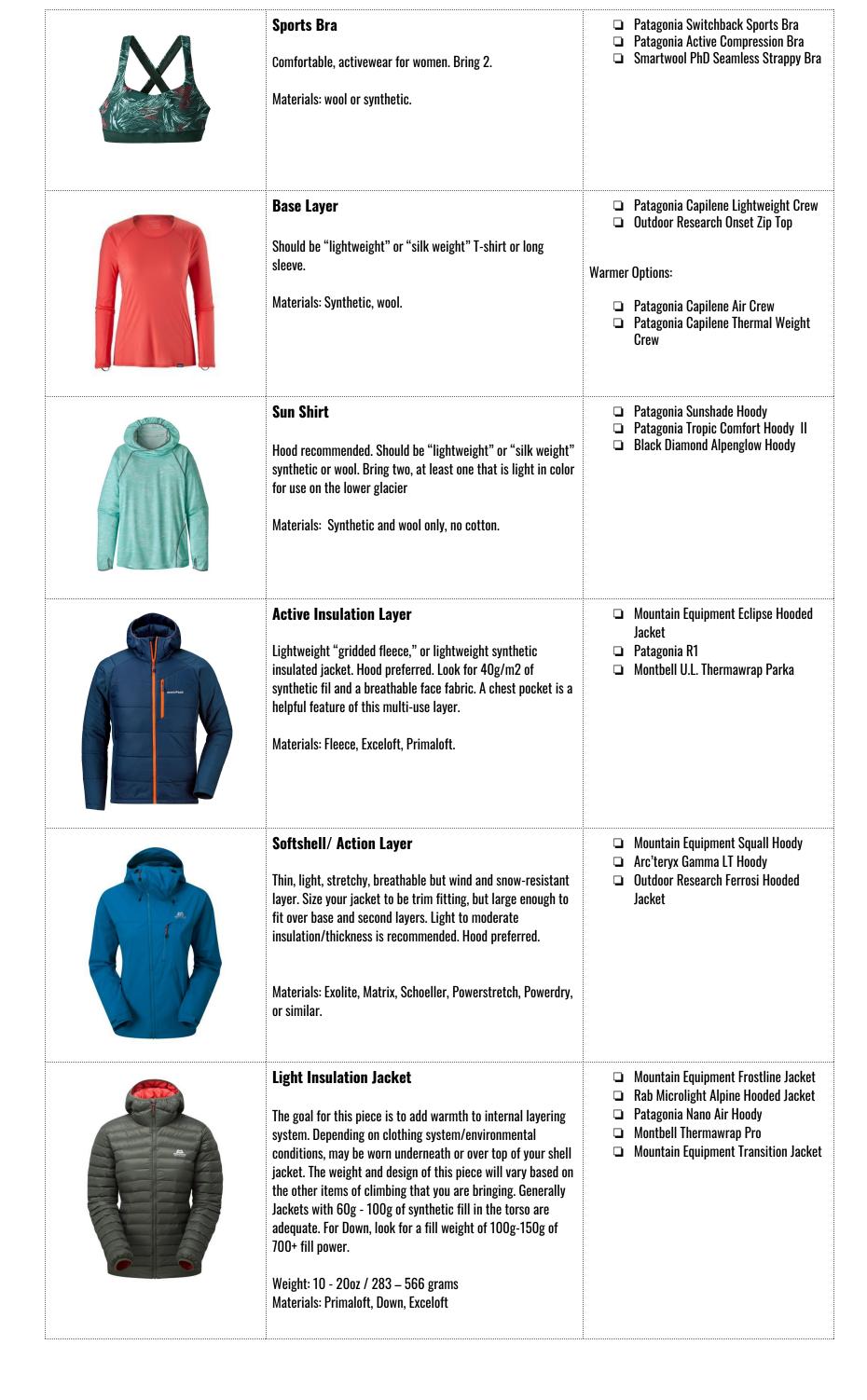
www.alpineinstitute.com info@alpineinstitute.com Equipment Shop: 360-671-1570 Administrative Office: 360-671-1505 1515 12th st

DENALI - WEST BUTTRESS EXPEDITION EQUIPMENT CHECKLIST

View this list on our Equipment Shop's website here

Layering Systems		Guide Recommendation	
Head			
SKIDA SKIDA SKIDA	Beanie/Toque Big, puffy and warm. Wool, synthetic, or Windstopper material. Windstopper can be a good idea but makes hearing difficult. This hat will primarily be used while sitting around camp or in very cold and windy conditions.	□ Skida Alpine Hat	
	Sun Hat Preferred to fit under helmet.	☐ Your favorite ball cap/trucker hat☐ Outdoor Research Sun Runner Cap☐ Patagonia Airdini Cap	
	Choose a model with 100% UVA/UVB protection and side shields. The lenses should not have any more than 12% of visible light transmission (VLT). They should have a snug fit. Bring additional, "backup" pair if you have them. NOTE: Those using contact lenses should also bring a pair of prescription glasses in the event that your contacts or solutions are lost or damaged by freezing. *Contact Lens Care Precautions: In our experience, contact lenses are perfectly acceptable for climbing trips at altitude and in very cold conditions. If you plan on wearing contact lenses on Denali, you should be familiar with the intricacies of long-term maintenance and care in these conditions. Plan on bringing at least two spare pairs of lenses and a few small bottles of whatever solutions you will require. Bring a pair of glasses as a backup or to give your eyes a rest.	☐ Julbo Explorer 2.0 ☐ Julbo Tamang ☐ Julbo MonteBianco ☐ Julbo MonteRosa	
	Ski Goggles For use in high winds and heavy snow. They should block 100% of UV light. Photochromic lenses are most versatile in a variety of light conditions. If you wear prescription glasses, these must fit comfortably over your glasses.	☐ Julbo Aerospace ☐ Smith I/07 ChromaPop ☐ Oakley Line Miner	
	Nose Protection Optional: Designed to protect your nose from the sun, this is a cloth nose guard that fits onto your glacier glasses. Try the fit on your sunglasses; they should fit well without pushing the frames off your nose. Trim as needed.	□ Nozkon Nose shield □ Beko Nose shield	





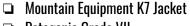


Expedition Weight Parka w/ Hood

These jackets come in many shapes, sizes and temperature ratings. If you tend to get cold easily, opt for a slightly warmer and more substantial parka. Otherwise, choose a Down parka that is still fully baffled, includes a hood, and offers sufficient coverage over waist. Stitched through baffle construction is not acceptable, must be a box wall baffle construction throughout the body and arms.

Weight: 20 - 55oz / 567 – 1560 grams Fill Materials: Down

Fill Weight: Look for at least 300g of 800 fill Down for size L. If the jacket is using anything less than 800 fill Down, make sure there is substantially more fill weight in the jacket. Shell Materials: Drilite, Pertex



- □ Patagonia Grade VII
- Feathered Friends Volant Jacket Feathered Friends Khumbu Parka



Hardshell Jacket

Waterproof/breathable construction. Should be sized to comfortably fit over other base and mid-layers (minus parka). Choose the lightest, most packable shell that will still get the job done. Avoid extra pockets (one or two chest pockets is all you need), and hanging linings. Hood should fit over climbing a helmet.

Materials: Gore-Tex, eVent, Drilite, H2NO, Pertex Shield

	Mountain	Equipment	Odyssey.	Jacket
--	----------	-----------	----------	--------

- ☐ Arc'teryx Alpha FL
- ☐ Patagonia Cloud Ridge Jacket

Lower Body



Undergarments

1-3 pairs depending on personal preference for changing.

Materials: Synthetic, wool

- ☐ Patagonia Women's Barely Bikini
- ☐ Patagonia Men's Daily Boxer Brief



Lightweight Baselayer

Look for the same features as your Base Layer Top. One pair is usually sufficient.

Materials: Synthetic, wool

☐ Patagonia Capilene Lightweight **Bottoms**

Warmer options:

- ☐ Patagonia Capilene Air Bottoms
- ☐ Patagonia Capilene Thermal Weight **Bottoms**



Expedition Weight Bottoms

A thicker pair of long underwear bottoms that will serve as an additional insulating layer for use in colder temperatures. Windproof/Windstopper pants are heavier and less functional and will not work for this layer.

Materials: Powerstretch 100, wool, fleece, or similar

- Rab Powerstretch Pro Pants
- Patagonia R1 Pants
- Outdoor Research Aline Onset **Bottoms**



Insulated Pant

Sized to fit over softshell pants and long underwear layers, these pants are the last line of defense in extremely cold temperatures. Hip to full-length side-zips are a critical feature. Down or synthetic fill (as opposed to fleece) pants are preferred. The warmth of this layer will vary based on the temperatures expected on your program. Reinforced seat and knees recommended.

Weight Recommendation:

Early Season Down-100-150g 800+ fill

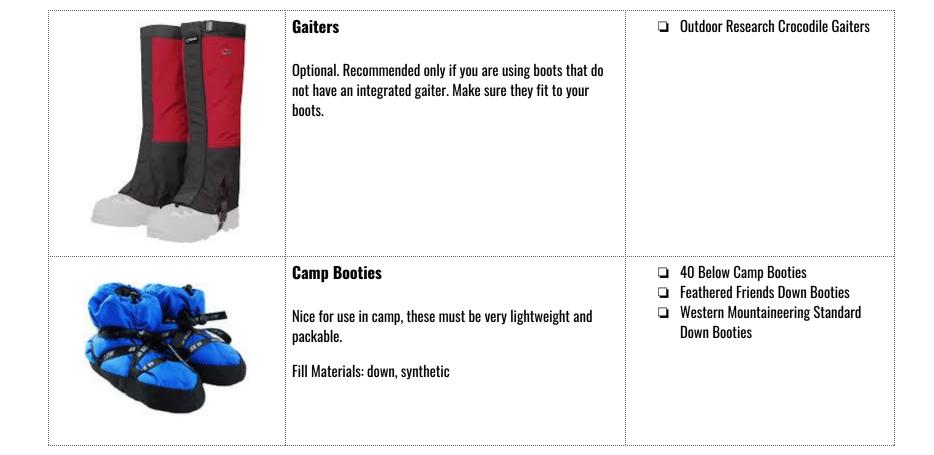
Late Season 60-100g 800+ fill

- Synthetic:
- □ Rab Photon Pant
- Montbell Tec Thermawrap Pant
- **■** Mountain Hardwear Compressor Pant ☐ Black Diamond Stance Belay Insulated
 - **Pants**

Down:

- Montbell Tec Down Pant
- ☐ Feathered Friends Volant Pant
- ☐ Feathered Friends Helios Pant

	Synthetic- 100g/m2 80g/m2	
	Materials: Primaloft, Polarguard 3D, down	□ N10
	The outermost layer the majority of the time on the mountain. Should be stretchy, breathable and wind/snow-resistant. A thigh pocket is a useful feature for storing small items. Base and expedition weight layers need to fit under these pants comfortably. NOTE: Early season expeditions should look for thicker, warmer models whereas late season expeditions should consider thinner, light in color and more breathable models. Materials: Schoeller, Exolite, or similar	 □ Mammut Courmayeur Pants □ Arc'teryx Gamma LT Pants Warmer Options: □ Outdoor Research Cirque Pant □ Mountain Equipment Chamois Pant □ Mountain Equipment Ibex Pant
	Hardshell Pant Non-insulated, waterproof and breathable membrane. Must have full side zips. When sizing make sure to it is able to fit over a base layer and soft shell pants. Materials: Gore-Tex, Drilite, H2NO, Pertex Shield	□ Mountain Equipment Odyssey Pant □ Arc'Teryx Alpha SL Pant
	Feet	
Lord	Bring three over the calf complete changes, more if you know you have very sweaty feet. If planning to wear 8000 meter boots or Intuition liners, bring several light to mid-weight socks and one pair of heavy/warm socks. Adjust your sock system ahead of time to perfect your boot fit. Materials: wool, synthetic	□ Lorpen T3+ POLARTEC® TREKKING & EXPEDITION □ Darn Tough Hiker Cushion Boot socks □ Lorpen T3 Midweight Hiker socks
SCARPA	High Altitude Mountaineering Boots This is one of the most important items on this list, proper fit and function with sock system is a MUST. Double boots are required, designed for extended use in extreme temperatures. Modern synthetic integrated boots (those with a built in overboot/gaiter) are suitable for this climb. For traditional plastic boots, thermo-mold liners are warmer, lighter, and more comfortable than standard liners. If you have heat-moldable liners in your boots already and you have worn them for several trips, you may want to have them re-fit to ensure that the foam has not compressed and the temperature rating has been retained. Shell Materials: Synthetic, plastic Liner: Thermo-moldable or High Altitude models	□ La Sportiva G2 SM □ La Sportiva Baruntse □ La Sportiva Spantik □ Scarpa Phantom 6000 □ Scarpa Inverno □ La Sportiva Olympus Mons □ Scarpa Phantom 8000 □ Millet Everest Summit GTX NOTE: There are many makes and models of high altitude boots out there and not all are created equal. Please consult with our Equipment Shop if you are uncertain about the acceptability of your chosen model.
	Overboots If you have an 8000M boot then these are not required. If you have the La Sportiva G2 SM, then an overboot is optional, recommended though if you tend to get cold feet. For any other boot they are a MUST. Please verify these fit over your boots and that your crampons stay on without fail. Mountain Hardwear Absolute Zero, Outdoor Research, and Brooks Range overboots have not performed well on past expeditions and cannot be used. "40-below" are the lightest, warmest, most functional and highly recommended. Materials: Neoprene, Cordura, ballistic cloth	40 Below K2 Superlight 40 Below Purple Haze 40 Below Everest



Guide Recommendation Mountaineering Equipment Wild Things Mule Duffel 144L **Duffle Bags** ☐ Gregory Alpaca Duffel 120L ■ Mountain Equipment Wet & Dry Kit Bag 140L Your large duffel (120-140L) should have a full-length zipper and be of durable construction for use on the mountain to transport gear in your **□** Wild Things Carry-On Duffel 42L ☐ Mountain Equipment Wet & Dry Kit Bag 40L A second duffel (40-60L) or travel bag will be needed to store your town clothes and personal items while on the mountain. This bag will be left in a secure storage area at the glacier flight service base. □ Osprey Xena 85 **Large Internal Frame Pack** Osprey Xenith 105 ☐ Gregory Denali 100 Large internal frame pack should fit your body type. This pack must be at **□** Mountain Hardwear BMG 105 least 5600 cubic inches in size; larger is better if possible. Avoid bells and whistles like large, full-length zippers, separate sleeping bag compartments, etc. It is very important that your pack be in good working order and not prone to failures of any sort. Size Range: 90-100 Liters / 5600 + cu in. **Technical Gear** Petzl Glacier **Ice Axe** Petzl Summit ☐ SMC Kobah A straight shaft ice axe like the Petzl Glacier or Black Diamond Raven Pro is recommended. Adze is required. Please contact our Equipment Shop if you have any questions. Use the following tables as a <u>rough</u> guide on length. Ice axe leashes are not required and not recommended. Straight Shaft Axe -5'8" or shorter : 50-55cm -5'9"- 6' : 55-60cm -6'1"-6'3" : 60-65 cm -6'4" and up : 65-68cm Petzl Altitude **Expedition Climbing Harness** ☐ CAMP Alp Mountain Bring the simplest, lightest harness that fits over bulky clothing and is comfortable in combination with your fully loaded backpack. Padding on -Women's specific recommendation: the waist or legs not necessary. Adjustable leg loops are highly desired. ☐ Blue Ice Choucas Light **Climbing Helmet** Petzl Sirocco Helmet ■ Black Diamond Vapor Helmet Must be UIAA rated for climbing. Helmets are required for certain sections Mammut Wall Rider Helmet on the upper mountain. Choose the lightest weight helmet that still fits your head shape well. Material: Hard plastic, EPP foam shell **Steel Crampons** Petzl Vasak ■ Black Diamond Sabertooth Modern steel, 12-point, strap-on crampons are recommended. Step-in ☐ Grivel G12 crampons are easier to put on with cold fingers, but can be harder to work well with overboots. Strap-on crampons provide more reliable attachment to boots with overboots. Regardless, be sure crampon, overboot, and boot combination work well together. Make sure that you get an extender bar if your boots are too big for the standard linking bar. You must also bring crampon adjustment tools if your crampons require them. Crampons

	should be suitable for steep ice climbing. Aluminum crampons are not functional on Denali.	
	Material: Steel, stainless steel	
	Two are required. Leverlock closures are highly recommended. Twist lock closures either break or wear out easily and then there is no good way of fixing them. Even if you don't normally use trekking poles, on this expedition in particular, they are invaluable in helping with balance while carrying heavy packs on snowshoes.	□ Black Diamond Expedition 3 Ski Poles
	Equipped with an integral crampon and/or aggressive traction on the bottom of the snowshoes. Snowshoes can be sized smaller than is typically recommended by manufacturers since deep snow is not common on the climbing route. Large profile basic models made by Tubbs, Atlas, and Sherpa do not work well and are not recommended. Models by MSR are proven and quite durable. Many climbers rent these from AAI as they are hard to travel with. Length should not exceed 25-28 inches.	□ MSR Evo Ascent □ MSR Revo Ascent
	2 Shoulder Length Slings We require two 60cm (24in.) "single-length" pre sewn slings, used to attach your ascender to your harness and for other uses throughout the trip. We supply the ascender. Thinner spectra/dyneema slings are not recommended because they are hard to remove knots from with gloves on. Materials: Nylon, synthetic blends	□ Black Diamond 18mm Nylon Runner 60cm (24in.)
	Carabiners MUST be easy to manipulate with large gloves on, lightweight is preferred. 3 large, pear shaped locking carabiners and 4 wiregate non-locking carabiners are required. Carabiners are considered group gear and will wind up changing hands while on the expedition. Label/tape them well if you want your exact carabiners back at the end of the trip. Materials: Aluminium, NO Steel	Locking Grivel Clepsydra K10G CAMP HMS Compact CAMP HMS Nitro Non-Locking CAMP Photon
	Prusiks Specially tied loops of 6mm cord used for crevasse rescue. If you don't have a set of prusiks from a previous AAI course, bring three lengths of 6 mm perlon/nylon: 13 feet, 6 feet, and 5 feet. Cord thicker than 6mm will not work. Precut lengths are available for sale in the AAI Equipment Shop.	□ AAI Prusik kit □ 6mm Accessory Cord
	Sleep System	
9	leeping Bag	☐ Mountain Equipment Iceline -22F
Do Ra	own Only. Synthetic bags are not acceptable due to their size and weight. ated to -30F (-34C) for the early and mid-May expeditions; to at least OF (-28C) for expeditions in June. If you know you sleep cold take this	 □ Mountain Equipment Redline -49F □ Feathered Friends Snow Goose -40F □ Feathered Friends Peregrine -25F □ Feathered Friends Plover Women's -25F

into consideration when purchasing/selecting your bag. ☐ Marmot Cwm -40F ☐ Western Mountaineering Puma GWS -25F $Shell\ Materials:\ Drilite,\ Dryloft,\ eVent,\ Epic,\ nylon$ Fill Materials: Down

	Compression Stuff Sack	Sea to Summit eVent Compression Dry Sack
	Used to shrink sleeping bag and expedition parka into the smallest size possible. Bring two.	
A	Materials: SilNylon, eVent, or similar	
	Sleeping Pads	Closed cell foam: ☐ Thermarest Z Lite SOL
	Two are required. One full-length 1/2" thick closed cell foam pad. The second pad can be either a closed cell foam or an inflatable pad. Inflatable	Inflatable Pad:
	pad should be a modern, lightweight, and packable version. Old Thermarests with metal valves are not acceptable as the valves freeze.	Mountain Equipment Aerostat Down 7.0Thermarest NeoAir XTherm MAX
	Mountain Dining Ware	Coo to Cummit Titorium Charle
⇒ SEATUSUMMIT	Spork Bigger is better. Long handle preferred. Plastic and high temp nylons not	Sea to Summit Titanium SporkSnow Peak Titanium SporkSea to Summit Alpha Light Spork Long
TITANIUM	recommend as they break easily in cold temps.	God to Gammit Alpha Light Opolik Long
M SPORK IN INC.	Materials: Titanium, Aluminum	
(i)		
	Inculated Cating Containor	☐ Nalgene 16oz storage container
	Insulated Eating Container A lightweight Tupperware-type container with insulation is recommended.	GSI Fairshare Mug II
	Avoid small bowls that are prone to tipping and more fragile (plastic). Metal containers conduct heat more rapidly and lead to colder food and	
	drinks faster than other materials.	
	NOTE: Wrapping your eating container in closed-cell foam (sleeping pad material) is a Guide's tip for keeping your food warmer longer.	
	Thermal Mug	□ Zojirushi SM-LA 48
	12-32oz with a lid.	
T-zámm		
	Water Bottles	□ Nalgene 1L bottles
	Two or three water bottles, one-liter wide mouth Nalgene type, are	40 Below Cold Weather Expedition Water Bottle1L
(%/nalgene)	required. 2.5-3 liters of water capacity minimum. Narrow mouth bottles are not functional and should not be used. Hydration packs are not recommended as they will freeze and stay frozen.	
	1000mmonuou as thoy will 110020 and Stay 1102611.	
	Water Bottle Parkas	□ 40 Below Bottle Boot □ OR Bottle Parka #1
	These insulating jackets are for your water bottles to help prevent freezing. Bring one for each bottle.	
	NOTE: Please write your initials on the outside of the parka, making it easy for your guides to fill up and return them to you.	

Other Essentials		Guide Recommendation	
	Toiletries		
MATE .	Toothbrush & Toothpaste		
colgote	Travel size recommended.		
T TOOLS OF THE PARTY OF THE PAR	Hand Sanitizer Required. Used after going to the bathroom and before eating.	□ Purell 2 fl. Oz. travel size	
Simple SUMMY SER EXPERIENCE CLEORISING PACIAL WIFES SINDE TO SERVE LACE, IL'S SIMPLE LETTER LETTE	Face & Wet Wipes The mountain shower. For personal hygiene and general use. Allot for at least 1-2 a day while on the mountain. Using makeup remover pads have been found helpful for taking off sunscreen.	□ Simple Cleansing Facial Wipes □ Neutrogena Makeup Remover Towelettes □ Wet Wipes	
CANTENE	Pee Bottle Used at night or when the weather is poor so you don't have to get out of your tent. 1-quart size minimum. A collapsible 2L Nalgene recommended. Plastic bottles from the store such as Gatorade bottles can work well but the lids are less secure than a Nalgene. If you choose to bring one of these, use it carefully and make sure the capacity is adequate. Label your pee bottle well.	□ Nalgene 96oz Flexible Cantene	
GOLD BOND CONTROL BOND BOND	Foot Powder/Antiperspirant: A very small bottle will allow you to treat your feet daily, keep them drier, extend the life of your socks, and help you avoid blisters/rashes from chronic wet feet.	□ Gold Bond Medicated Powder □ Tea Tree Essential Oil	
	Female Specific		
When nature salls, the answer is Freshelle by art has jour in. Feminine Urinary Director for women of all ages	Female Urinary Devices "Pee Funnel" Used to make urinating in the tent and in extreme cold temperatures more convenient. Make sure you use and practice using your device many times before putting into practice on the mountain. Important to have a good seal and fit for best results.	□ Freshette □ SheWee □ Pibella □ Go Girl □ Tinkle Belle	
Diracup	Menstrual Care Even if you do not anticipate being on your period during your expedition, please come prepared to take care of your menstrual needs. Bringing products with limited packaging is preferred to cut down on trash. Continue using what is comfortable. If considering a menstruation collection cup, extensive experience prior to your expedition is highly recommended.	□ o.b. tampons □ Diva Cup □ Dutchess Menstrual Cup □ Intima Lily Cup	
Sun Protection			
Broad Spectrum SPF35 ZING COXIDE SUNSCRIEN ALL SEASON FACE STICK User State Beauses We have been been been been been been been be	SPF 30+, zinc based is preferred. Small travel size tubes are recommended so you can put them in a pocket for easy access. Stick applicators allow you to apply without exposing fingers. Dermatone produces an effective 1" diameter stick as well as a translucent zinc oxide lotion. Only your face and, at times, your hands will be exposed. Several small containers are better than one large one. Sunscreen is prone to freezing in the cold and smaller containers fit well into pockets for warming.	 □ Sun Bum Sunscreen Face SPF 50 □ Cotz Plus Sunscreen SPF 58 □ All Good Zinc Sunscreen Butter SPF 50+ □ Badger All Season Face Stick SPF 35 	



Lip Protection

Bring 2 containers/applicators with the highest SPF available. Zinc oxide also works well (available in pharmacies) as do some models of "chapstick" that have SPF25 or higher.

	Joshua Tree Lip Balm SPF 18+
\Box	Sun Rum Lin Ralm SPF 30

First Aid/Repair Kit



Personal Medical Kit

AAI supplies expedition med kits with a supply of prescription drugs. If you have any special needs please communicate them to AAI and plan to bring an adequate supply of your medications based on counsel from medical professionals.

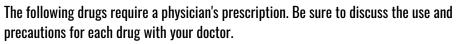
Cuts. Bruises & Blister kit

- 10 assorted Bandaids
- Plenty of Compeed, Bandaid, or Dr. Scholls blister pads
- A packet of moleskin (note: some people are allergic to the glue on moleskin and other medical adhesives.)



Personal Medications

- Tylenol, Ibuprofen, or Aspirin
- Immodium (Anti-Diarrhea)
- Antacids
- Pepto-Bismol (Stomach Relief)
- If you suffer from Asthma or significant allergic reactions, please notify AAI and your guide regarding the location and presence of your epi-pen and/or inhaler.



- Acetazolomide (Diamox) For prevention or treatment of Acute Mountain Sickness.
- Choose one broad-spectrum antibiotic that is known to be effective for lung microbes/respiratory tract infections.
- o Trimethoprim-Sulfamethoxazole (Bactrim or Septra)
- o Levaquin (levofloxacin)
- o Gatifloxacin

NOTE: Always consult a doctor when selecting medications and antibiotics for personal use.



Repair Kit

Include a Thermarest repair kit (for Thermarest pad users) and duct tape (can be wrapped on water bottles or trekking poles). Your guides will have a full-featured repair kit



Multitool/Knife

Any multi tool similar to a Leatherman is great. One can be shared amongst tent-mates. Smaller and simpler is better than overly complex.

Other Optional Items

The items below are not required, although many are nice "luxury" items that can make your expedition more enjoyable. Remember that a few ounces here and there add up to extra pounds on your back and knees during your expedition.

Favorite Snack Food

Optional. Bring no more than one pound of high energy and tasty snack food for high-energy expenditure days (like summit day) and for evening treats while in the tent. If you have special dietary needs, please consult with us.

Garbage Bags

Bring two or three large ones. They serve a variety of uses. Trash compactor bag, if available, are more durable.

Entertainment

Books, games, cards, for stormy days in the tent. Music players like iPods and MP3 players are popular because the device and media are small and relatively lightweight. AAI provides a solar panel than can be used to charge electronic devices. However, expedition electronics will have first priority.

Journal and Writing Device:

Some climbers like to keep a journal or log for writing on the trip. Ballpoint pens and pencils work well in the cold and at altitude but other ink type pens do not. "Rite-in-the-Rain" notebooks are more durable and more functional for the mountain environment than regular notebook paper.

Portable Charging Device

Phone charger, battery pack, or small solar panel.

NOTE: Solar panels should only be used to charge battery packs. Battery packs should be used to charge devices. Inappropriate use of a solar panel could lead to the depletion of a device's power.

Ear Plugs

For defense against snoring and high winds.

Insect Repellant

Recommended for use in Talkneetna. If bringing repellent look for more concentrated repellent in smaller containers. Pack it in a Ziploc bag to prevent contaminating other items in your pack.

Camera

Phone cameras are preferred. SLR cameras are not recommended due to their size and bulk. Small point and shoot cameras that can easily be carried in an outside pocket or small case outside your pack. If you can't comfortably and safely carry your camera outside your pack, even in bad weather, you'll miss the best photo opportunities.

Headlamp? Not Needed....

By mid-May there is very little darkness in the Alaska Range and headlamps are not needed. Climbers on early May trips may choose to bring a small headlamp for the few hours in the late night or early morning that it is close to dark, but most people will not need one. If you do bring one it should be very small and very light like the Petzl Tikka or Black Diamond Ion.

Post Climbing Bag

In addition to your mountain duffle, it is nice to have another bag to store things that will not be coming onto the mountain. This bag will be locked and stored at the K2 airstrip ready for you once returning off the mountain.

Post-Climbing Clothing

Plan ahead and pack some clean clothes (and flip flops!) in your duffel at the airstrip to change into when you get off the glacier.