



## STEM TREK 2019 / 2020

### Science – Technology – Engineering – Math

The STEM Trek is an exciting program at Philmont Scout Ranch for Scouts and Venturers who have an interest in **Science, Technology, Engineering and Math**. Participants will enjoy a 12-day trek throughout Philmont's 140,711 acres of rugged mountain wilderness in the Sangre de Cristo Range of the Rocky Mountains of northeastern New Mexico.

The STEM Trek program will offer each participant the chance to explore the Philmont backcountry in a whole new way! As the STEM crew hikes the ranch, they will camp in many different areas and engage in interactive lessons in the following areas: physics, chemistry, forestry, astronomy, stream ecology, wildlife management, geology, botany, watershed management and range management. In addition, "Leave No Trace" techniques and principles will be integrated into the curriculum.

During the STEM trek, each crew will spend several days participating in diverse STEM discussions and have the opportunity to complete a short-term experiment and explore the scientific method. The experience of working on such a wide array of projects will provide vital knowledge for use at local council camps and managed areas in the participant's community when he or she returns home.

STEM Trek participants will work and hike in crews under the leadership of trained Philmont rangers, many of whom have academic backgrounds in the science, engineering, math and technology, and/or years of experience working in an outdoor classroom. Crews will be composed of young men and young women from all over the United States. All crew equipment such as tents, cooking gear and tools, will be provided by Philmont and all participants will be covered by campers' insurance.

Philmont Scout Ranch covers 219 square miles, with more than 350 miles of trails. Philmont ranges from 6,500 feet to 12,441 feet in elevation above sea level. Because of the remote settings and elevation, participants need to be prepared, both physically and mentally, to handle the challenges of the trek. Philmont experiences a wide variety of weather situations. Participants should be prepared for possible 100 degree days, 40 degree nights, as well as days of rain and even snow. All this adds to the STEM Trek and the Philmont experience.

### REQUIREMENTS

- Be a registered member of the Boy Scouts of America. (Boy Scout, Varsity Scout, or Venturer)
- Be 14 years old by date of participation or 13 and completed 8<sup>th</sup> grade, but not yet 21 by its conclusion.
- Be physically fit, able to lift and handle materials up to 50 lbs. (Philmont height and weight guidelines will be strictly enforced).
- Be in excellent physical condition, able to hike 10 or more miles per day with a 40-50 lb. backpack.
- STEM Treks are coed.
- A complete physical examination is required. (BSA Annual Health and Medical Record will be sent to those who are accepted.)

### UNIT AND LOCAL COUNCIL RESPONSIBILITIES

The participant's unit leader and local council executive must approve only those young adults who meet the qualifications for this program. Philmont is not an easy experience and is a risk for those not physically prepared for the rigors of the northeastern New Mexico mountainous terrain.

### HOW TO APPLY

Complete the enclosed application. Apply early for best consideration. Applications will continue to be accepted until all spaces are filled. Have it approved by a parent or guardian, a unit leader and your Scout Executive. **Mail your completed application to: STEM Trek, Philmont Scout Ranch, 17 Deer Run Rd, Cimarron, NM 87714.** Philmont will notify you of your acceptance. If accepted, a packet of materials will be sent in May to assist you in preparing for your Philmont trek experience.

### PROGRAM FEE/SCHOLARSHIPS AND TRAVEL INFORMATION

The fee is \$970 in 2019 and \$1,000 in 2020 for the twelve-day experience. **A \$50 non-refundable deposit is required with this application.** The balance of the fee is due at the time of acceptance into the program. Additional expenses, including travel to and from Philmont, as well as miscellaneous purchases, are the

responsibility of the participant. Those applicants not accepted will have their deposit returned. Participants canceling acceptance will be eligible for a refund if notification is received at Philmont by May 1. No shows are not eligible for a refund. **Scholarship funds are available on a limited basis.** See enclosed scholarship application.

Shuttles are available from the Albuquerque, New Mexico and Colorado Springs and Denver, Colorado Airports to Philmont. The shuttles leave the airport at 1:00 to 3:00 pm, depending on the location, on the day **before** your scheduled start date, arriving at Philmont at 6:30 to 7:00 pm (approx). The return shuttles leave from 6:00 to 7:30 am on your departure date, arriving at the Airports at 9:45 am to 12:00 noon, depending on location. You may also consider the bus or train arrival at Raton, New Mexico (45 miles from Philmont). A roundtrip shuttle is available from Raton. If you do not arrive by shuttle, plan to arrive at Philmont between 8:00 - 11:00 am on your scheduled start date. The Shuttle information/registration forms will be included in your March packet. **Shuttle times may change so please check shuttle registration forms upon receiving them or call Philmont for updated information.** The STEM Trek is a twelve (12) day program. Participants depart the morning of the thirteenth (13th) day (July 22, July 28 & August 3 are depart dates).

### **ADDITIONAL INFORMATION**

For additional information about the STEM Trek Program such as shuttle arrangements, physical requirements (annual health and medical record questions), equipment needs, service worksites and hiking questions, contact Philmont Scout Ranch at 575-376-2281 or email [camping@philmontscoutranch.org](mailto:camping@philmontscoutranch.org). Another source of information to assist you in preparing for your adventure can be found at <http://www.PhilmontScoutRanch.org>.

During the dates of the program, contact Philmont Scout Ranch at 575-376-2281, seven days a week, and ask for the STEM Trek coordinator or Camping Registration. During this time, Philmont Logistics will also be able to assist with transportation concerns or problems.

### **STEM TREK DATES FOR 2019**

First Session: **July 10 – 22**    Second Session: **July 16 – 28**    Third Session: **July 22 - August 3**

### **STEM TREK DATES FOR 2020**

First Session: **July 10 – 22**    Second Session: **July 16 – 28**    Third Session: **July 22 - August 3**

**Please Note:** If less than six participants register for a session by May 1, the session may be cancelled. Participants will be promptly notified and alternative programs suggested.

### **STEM TREK CODE OF CONDUCT**

The general welfare of any group depends on the conduct of each individual member. This ensures the success of the school project and provides the maximum benefit to every participant. As a STEM participant, I understand this and support the reasonable demands of conduct expected of me.

### **AS A STEM TREK PARTICIPANT, I WILL:**

- Live the Scout Oath and Law.
- Observe, respect, and strive to live the Philmont Wilderness Pledge.
- Observe the rules of the Philmont Scout Ranch and my Instructors/Rangers.
- Wear my full official BSA uniform or work clothes as required. (Unofficial decorations are not part of BSA uniform.)
- Attend and participate in all functions of the program while being an engaged student.
- Be personally responsible for damage and loss of property.
- Observe quiet hours.
- Respect all safety procedures and learn to properly use equipment.
- At all times, be considerate of participants and staff at Philmont Scout Ranch.
- Understand that fighting with another participant or staff member is prohibited, and will be grounds for immediate dismissal from the program at the expense of the participant.
- Understand the purchase, possession, or consumption of alcoholic beverages, cigarettes, tobacco, or illicit drugs at any time during the program, will not be permitted and will result in dismissal from the program at the expense of the participant. This standard shall apply to all participants. Compliance with state law regulations will apply at all times.

**By signing along with my parent/guardian on the final page of this application, I acknowledge I have read and promise to abide by the code of conduct for the STEM Trek Program and have read and understand all the information about the STEM Trek Program as listed on this application.**

**2019 / 2020 STEM TREK APPLICATION**

**(Please type or print clearly)**

NAME \_\_\_\_\_ EMAIL \_\_\_\_\_  
(first) (middle) (last)

MAILING ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

CELL # \_\_\_\_\_ Home # \_\_\_\_\_ Parent's Cell # \_\_\_\_\_

DATE OF BIRTH\* \_\_\_\_\_ (\*Must be 16 by program start date, but not 21 by its conclusion)

ADDITIONAL INFORMATION: Gender \_\_\_\_\_ Age \_\_\_\_\_ Grade \_\_\_\_\_ Height \_\_\_\_\_ Weight \_\_\_\_\_  
male / female

**SCOUTING AND OUTDOOR EXPERIENCE:**

(Circle One)

Now Registered with: Troop, Team or Venture Crew # \_\_\_\_\_ Tenure \_\_\_\_\_ Rank \_\_\_\_\_

Council # \_\_\_\_\_ Council Name \_\_\_\_\_

Leadership Positions Held \_\_\_\_\_

Previous Philmont Experience \_\_\_\_\_ Year(s) \_\_\_\_\_

Other High Adventure Experience / Backpacking Experience (please be specific) \_\_\_\_\_

Total no. of backpacking overnights \_\_\_\_\_ Longest backpacking expedition in: Days \_\_\_\_\_ Miles \_\_\_\_\_

Extracurricular Activities \_\_\_\_\_

Honors / Awards Received \_\_\_\_\_

Camp Staff Experience (When and Where) \_\_\_\_\_

CPR/First Aid Certifications \_\_\_\_\_

I'm requesting the following session for **2019**:

1<sup>st</sup> Session: **July 10 – 22** \_\_\_\_\_ 2<sup>nd</sup> Session: **July 16 – 28** \_\_\_\_\_ 3<sup>rd</sup> Session: **July 22 - August 3** \_\_\_\_\_  
 \_\_\_\_\_ \$50 deposit enclosed **OR** \_\_\_\_\_ \$970 (full fee) enclosed (checks payable to Philmont Scout Ranch)

I'm requesting the following session for **2020**:

1<sup>st</sup> Session: **July 10 – 22** \_\_\_\_\_ 2<sup>nd</sup> Session: **July 16 – 28** \_\_\_\_\_ 3<sup>rd</sup> Session: **July 22 - August 3** \_\_\_\_\_  
 \_\_\_\_\_ \$50 deposit enclosed **OR** \_\_\_\_\_ \$1,000 (full fee) enclosed (checks payable to Philmont Scout Ranch)

I request a vegetarian meal plan: Yes \_\_\_\_\_ No \_\_\_\_\_ I request a special diet meal plan: Yes \_\_\_\_\_ No \_\_\_\_\_

*Philmont offers High Adventure backpacking treks and program activities in relatively inaccessible mountainous terrain. Parents, advisors and youth participants should be alert to the potential for injury.*

*Philmont strives to minimize risks to participants and advisors by emphasizing proper safety precautions. Philmont staff members will instruct you regarding safety measures to be followed. Each participant is expected to follow these safety measures and to accept responsibility for their health and safety.*

**PARENT/GUARDIAN APPROVAL:**

My son/daughter has my complete permission to participate in the STEM Trek Program during the session indicated on this application. I understand that the program is physically demanding and involves a degree of risk and a potential for injury. I along with my son/daughter also acknowledge and agree with the Code of Conduct.

Participant Signature \_\_\_\_\_ Date \_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_ Date \_\_\_\_\_

**UNIT LEADER APPROVAL:**

I attest this applicant is a member in good standing and approve his/her participation in STEM Trek.

Unit Leader Signature \_\_\_\_\_ Date \_\_\_\_\_

**LOCAL COUNCIL ACTION NEEDED:**

Council # \_\_\_\_\_ Council Name \_\_\_\_\_ Region \_\_\_\_\_ Area \_\_\_\_\_

We certify that \_\_\_\_\_ (applicant's name) meets the age and physical requirements for the STEM Trek and is a registered member of the Boy Scouts of America.

\_\_\_\_\_  
\*Signature of Scout Executive or Representative

\_\_\_\_\_  
Date

**FEE SCHEDULE:**

The fee is **\$970** for **2019** and **\$1,000** for **2020**. A \$50 deposit must accompany this application. The remaining balance will be due upon receipt of confirmation.

**NOTE: A deposit fee, and all required signatures of approval must accompany application.**

Please make check payable to Philmont Scout Ranch and mail to:

**PHILMONT SCOUT RANCH  
ATTN: STEM TREK  
17 DEER RUN RD.  
CIMARRON NM 87714**

Philmont Contact Information: Phone: 575.376.2281

Email: [camping@philmontscoutranch.org](mailto:camping@philmontscoutranch.org)

Web Address: [www.PhilmontScoutRanch.org](http://www.PhilmontScoutRanch.org)

**FOR PHILMONT USE ONLY**

Recommendation Letters \_\_\_\_\_ Approved \_\_\_\_\_ Applicant Notified \_\_\_\_\_

Packet Mailed \_\_\_\_\_ Individual Exp. # \_\_\_\_\_

## HIGH ADVENTURE RISK ADVISORY

**Philmont Scout Ranch Experience.** The Philmont experience is not risk-free. Staff will instruct participants in safety measures. Be prepared to listen to and follow these measures. Accept responsibility for the health and safety of yourself and others. Each participant must be able to carry 25 to 35 percent of their body weight while hiking 5 to 12 miles per day in an isolated mountain wilderness ranging from 6,500 to 12,500 feet in elevation over trails that are steep and rocky. Summer/autumn climate includes temperatures from 30 to 100 degrees, low humidity (10 to 30 percent), and frequent, sometimes severe, thunderstorms. Winter climatic conditions can range from -20 to 60 degrees. During a Winter Adventure experience, each person will walk, ski, or snowshoe along snow-covered trails pulling loaded toboggans or sleds for up to 3 miles—or even more on a cross-country ski trek.

**Risk Advisory.** Philmont has an excellent health and safety record and strives to minimize risks to participants by emphasizing appropriate safety precautions. Because most participants are prepared, are conscious of risks, and take safety precautions, they do not experience injuries. If you decide to attend Philmont, you should be physically fit, have proper clothing and equipment, be willing to follow instructions, work as a team with your crew, and take responsibility for your own health and safety.

Philmont staff members are trained in first aid, CPR, and accident prevention. They can assist the adult advisor in recognizing, reacting to, and responding to accidents, injuries, and illnesses. **Each crew is required to have at least two members trained in wilderness first aid and CPR.** Response times can be affected by location, terrain, weather, or other emergencies and could be delayed for hours or even days in a wilderness setting.

All Philmont participants should understand potential health risks inherent at or above 6,700 feet in elevation in a dry Southwest environment. High elevation; a physically demanding high-adventure program in remote mountainous areas; camping while being exposed to occasional severe weather conditions such as lightning, hail, flash floods, and heat; and other potential problems, including injuries from tripping and falling, falls from horses, heat exhaustion, and motor vehicle accidents, can worsen underlying medical conditions. Native wild animals such as bears, rattlesnakes, and mountain lions usually present little danger if proper precautions are taken.

Please call Philmont at 575-376-2281 if you have any questions. All participants and guests should review all materials and websites related to the experiences they are planning to have at Philmont Scout Ranch.

### PHILMONT WEIGHT LIMITS FOR BACKPACKING AND HIKING

Weight limit guidelines are used because overweight individuals are at a greater risk for heart disease, high blood pressure, stroke, altitude illness, sleep problems, and injury. These guidelines are for all Scouting high-adventure activities. Each participant's weight must be less than the maximum acceptable limit in the weight chart. Participants 21 years and older who exceed the maximum acceptable weight limit for their height at the Philmont medical recheck WILL NOT be permitted to backpack or hike at Philmont. They will be sent home.

For participants under 21 years of age who exceed the maximum acceptable weight for height, the Philmont staff will use their judgment to determine if the youth can participate. Philmont will consider up to 20 pounds over the maximum acceptable; however, exceptions are not made automatically and discussion with Philmont in advance is required for any exception. Philmont's telephone number is 575-376-2281. Due to rescue equipment restrictions and evacuation efforts from remote sites, under no circumstances will any individual weighing more than 295 pounds be permitted to participate in backcountry programs.

**Philmont Approval.** Staff and/or staff physicians reserve the right to deny the participation of any individual on the basis of a physical examination and/or medical history. Each participant is subject to a medical recheck at Philmont.

**Height/Weight Restrictions.** If you exceed the maximum weight for height as explained in the following chart and your planned high-adventure activity will take you more than 30 minutes away from an emergency vehicle/accessible roadway, you may not be allowed to participate.

#### Maximum Weight for Height:

Height(inches)	Max Weight						
60	166	65	195	70	226	75	260
61	172	66	201	71	233	76	267
62	178	67	207	72	239	77	274
63	183	68	214	73	246	78	281
64	189	69	220	74	252	79 & over	295

This table is based on the revised Dietary Guidelines for Americans from the U.S. Dept. of Agriculture and the Dept. of Health & Human Services.

A water-displacement test to determine percent body fat will also be accepted in lieu of the height-weight guidelines. Women will need to have a body fat of 20% or less and men will need to have a body fat of 15% or less to be qualified to participate. No other form of test to determine percent body fat (DEXA scan, skin fold, etc.) will be accepted by Philmont.

INDIVIDUAL TREKS
FINANCIAL ASSISTANCE APPLICATION

A limited amount of financial assistance is available for Individual Trek participants. To apply, please complete this application and return it to Philmont. All information will remain confidential.

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NAME \_\_\_\_\_ BIRTHDATE \_\_\_\_\_ AGE \_\_\_\_\_
First Middle I. Last

ADDRESS \_\_\_\_\_ EMAIL \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_ PHONE \_\_\_\_\_

COUNCIL NAME \_\_\_\_\_ UNIT # \_\_\_\_\_

\*\*\*\*\*

\* How long have you been a member of the Boy Scouts of America? \_\_\_\_\_

\* Leadership position(s): \_\_\_\_\_

\* Local council camp experience (where & when): \_\_\_\_\_

\* Philmont experience: \_\_\_\_\_

\* Other high adventure experience: \_\_\_\_\_

\* Honors/awards (school, etc.): \_\_\_\_\_

\* Attach an essay that will help the scholarship committee understand your hopes and expectations if accepted as a participant. Please address the following topics directly: 1) What previous experiences have you had that will help you meet the challenges of this program? 2) What do you hope to learn or accomplish through this experience? 3) How will this experience help you in future service to Scouting; in pursuing other educational, career, or life interests? 4) What will be your greatest contribution as a participant of this trek.

Parent/Guardian Information:

Father \_\_\_\_\_ Employer/Occupation \_\_\_\_\_

Mother \_\_\_\_\_ Employer/Occupation \_\_\_\_\_

State circumstances that require you to apply for financial assistance: (attach additional page if needed)

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_

Amount of fee to be paid by:

Participant \$ \_\_\_\_\_

Family \$ \_\_\_\_\_

Unit or Chartered Partners \$ \_\_\_\_\_

Total Available \$ \_\_\_\_\_

Financial Assistance Requested \$ \_\_\_\_\_

Signatures required:

Participant \_\_\_\_\_

Parent/Guardian \_\_\_\_\_

Unit Leader \_\_\_\_\_

Date \_\_\_\_\_

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED