



Jamboree Nova

To earn this award, you must:

Be a Boy Scout or Venturer registered youth member of the BSA, participating in the 2017 National Scout Jamboree, and complete the following requirements.

1. Visit* the STEM Quest exhibit area (next to the Pools) and visit at least 5 different booths.
2. Visit* the STEM Quest Satellite booth in the Summit Center.
3. Do three things from each of the four categories below.

SCIENCE

1. Point out 5 constellations or planets in the night sky or visit a telescope exhibit/star party one evening.
2. Visit the American Chestnut Foundation exhibit on the Conservation Trail and obtain a map of the Restoration 1.0 orchard initial planting at the CONSOL bridge. Then from the bird's eye view provided by the CONSOL bridge count the number of surviving American chestnut trees. Compare this with the initial planting plan and calculate the survival rate for each side of the bridge. Please DO NOT ENTER THE ORCHARD AREA. FOOTING IS UNSAFE AND MINIMAL FOOT TRAVEL PREVENTS EROSION.
3. What are Eco toilets and how do they work (Sustainability Tree house)?
4. Estimate the climate benefits of trees (For example, how much carbon dioxide is being kept out of atmosphere by a tree that is 6 inches in diameter)? (Sustainability Tree house)
5. Explain the alternative energy sources of windmills and solar. How do they work? What are their advantages and disadvantages? (Sustainability Tree house)
6. Visit the Science Behind the Sport exhibit at the Canopy Tours (zip lines), Low Gear (biking), or Rock Climbing (can count up to 2 of these).
7. Identify at least 10 animals, plants and birds native to the Summit. What value do they bring to the Summit?
8. Why is it important/valuable to use native plants in landscaping? Can you identify any invasive species at the Summit?
9. Keep a weather log for 5 consecutive days, noting temperatures, rainfall, sunrise, sunset, fog, clouds, and sun.
10. Visit an exhibit that includes science, and explain the science that was used.

TECHNOLOGY

1. What can you do to save cell phone power?
2. Make a rain gauge and record the daily rainfall for at least 5 days.
3. Identify things to do to keep your food hot until you serve it. Why is this important?
4. Burn a piece of paper using the sun. Why does this work?
5. Learn about the solar showers, and the advantages and disadvantages of them.
6. Visit the Sustainable Forestry Initiative, Inc. exhibit on the Conservation Trail and learn how to use forestry tools to measure the height, diameter and volume of a standing tree.
7. Identify five ways technology makes life easier at the Summit.
8. How has technology changed since scouting was founded in 1910? For example, demonstrate/describe 5 ways to send a message, and tell which ones were used in 1910.
9. What is the wastewater cycle at the Summit? Demonstrate a way to purify non-potable water to make it drinkable.
10. Visit an exhibit that includes technology, and explain the technology that was used.

ENGINEERING

1. Build a camp gadget using an engineering principal - lever, pulley, wheel, plane, screw – with reused materials from around your camp site.
2. Identify signs of erosion around the Summit, and identify ways to reduce it.
3. Explain the differences between a zip line and a canopy tour. How are they engineered to be safe (safety margin)?
4. Visit the CONSOL Energy Wing Tip Bridge and examine its construction.
5. Identify five ways the Summit Bechtel Reserve is sustainable.
6. Build a bridge at least 24” long that will hold a hiking boot at least 6” off the ground (can be done at the STEM Quest Satellite booth).
7. Why are the subcamp shower houses designed the way they are? Would they be different if they were used year-round?
8. Explain the engineering of the rainspout replacements (the cups that move). (Sustainability Tree house)
9. Visit the West Virginia Division of Forestry exhibit on the Conservation Trail and demonstrate how to measure the slope of a road (using a clinometer and pacing) and discuss engineering principles used in forest road design.
10. Visit an exhibit that includes engineering, and explain the engineering that was used.

MATHEMATICS

1. Determine how far it is from your tent to the arena show stage, and explain your method or estimate how many steps and miles you walked over a single day. Map your trek.
2. Draw a scale map of your campsite.
3. Find an example of each prime number between 1 and 50. 2 dining flies, 3 carts, etc.
4. Determine how tall is the tower at the center of your camp.
5. Estimate the volume (in cubic feet/day) of trash leaving your site, and identify ways to reduce it. Put at least one of those into practice.
6. Estimate of the amount of water (potable and gray water) used at the Summit during Jamboree. Defend your estimate.
7. Visit the American Chestnut Foundation exhibit on the Conservation Trail, review the posters and information and calculate the percentage of American chestnut purity starting from a Chinese chestnut and an American chestnut cross then backcrossing the seedlings into the current Restoration Chestnut 1.0.
8. Estimate many patches will be traded during the Jamboree. Defend your estimate.
9. Explain how you can use math to improve your accuracy when shooting a gun or bow.
10. Visit an exhibit that includes math, and explain the math that was used.

*NOTE: A VISIT is defined as spending at least 10 minutes, participating, and talking to a staff member about the exhibit.

Jamboree Nova Counselor

Each troop should identify an adult leader to serve as the counselor for the Jamboree Nova. That person will be responsible for the following:

- Tracking completion of requirements by all youth in the troop
- Encouraging youth to earn the Jamboree Nova