# Rio del Oro Spring Camporee 2016 SCIENCE, TECHNOLOGY, ENGINEERING AND MATH 



April 15-17, 2016

## CAMP WARREN MCCONNELL

11760 LIVINGSTON CRESSEY RD LIVINGSTON, CA 95334

INFORMATION PACKET


BOY SCOUTS OF AMERICA
GREATER YOSEMITE COUNCIL
Table of Contents
OBJECTIVE ..... 4
DATE AND LOCATION ..... 4
REGISTRATION ..... 4
TO ALL SCOUTS AND LEADERS ..... 5
VISITORS ..... 5
PATROL METHOD ..... 5
HEALTH AND SAFETY ..... 6
FLAGS ..... 7
UNIFORMS ..... 7
CAMPSITE ASSIGNMENTS ..... 7
PARKING ..... 7
CHECKOUT PROCEDURES ..... 7
SPECIAL EVENTS ..... 8
PATROL FLAG COMPETITION RULES ..... 9
PATROL EVENTS ..... 10
Campsite Assessment ..... 11
CAMPOREE SCHEDULE ..... 13
2016 STEM Camporee Onsite Registration Form ..... 14
Camporee Patrol Registration Form ..... 14
Camporee Unit Roster ..... 15
Scoutmaster Cook-off Registration Form ..... 16
Patrol Cook-off Registration Form ..... 17
Skit or Song Submission Form ..... 18
Map ..... 19

## OBJECTIVE

The objective of this year's Camporee is to deliver a STEM-based program that provides challenges in a fun atmosphere, where each scout is exposed to activities that relate to Science, Technology, Engineering, and Mathematics. STEM is part of an initiative the Boy Scouts of America has taken on to encourage the natural curiosity of youth members and their sense of wonder about these fields through existing programs. From archery to rocketry, Scouts enjoy a wide range of STEM-related activities. To support this initiative, the BSA developed the Nova Awards program so that youth members have fun and receive recognition for their efforts. This camporee will allow for Scouts to work on projects in the STEM areas, while incorporating basic scouting skills.

## DATE AND LOCATION

The Camporee will take place from April 15-17, 2016 at Camp Warren McConnell, 11760
Livingston Cressey Road, Livingston California 95334

## REGISTRATION

## Online Registration

Registration for this Camporee is $\$ 10.00$ per person and will be done online. The following is the link for the online registration:
http://www.yosemitescouting.org/event/rio-del-oro-stem-camporee/1786644
If you are unable to register online, in this packet you will find the 2016 Camporee Registration Form. If you do register this way, please fill out the form and bring to the Council Office before April 10, 2016.

PLEASE NOTE: Events at this camporee will be on a first-come, first-served basis and Scout patrols will only be able to select some of the activities in each of the four areas (Science, Technology, Engineering and Mathematics). In addition, patrols and Scoutmasters may compete in the cook-offs, popsicle bridge, and cardboard boat races

## Late Registration

Onsite Registration will be accepted. Registration after April 10, 2016 will be $\$ 15.00$ per person. Activities will be assigned based on availability. So it is best to sign up early.

## Onsite Registration / Arrival

Upon arrival at Camp McConnell, each Unit must check in at the registration area located at the North end of the parking area. Signs will be in place to direct you. To keep traffic down, please send only the Senior Patrol Leader and Scoutmaster to register. We will then verify registration, payment, patrol classifications, Cook-off registration, and Troop campsite assignment.

Please note that units will be sharing campsites. Units will not be allowed into their campsite until all members of the unit are present. Only one vehicle per unit will be allowed down to unload. Once unloaded, your vehicle will need to return back to the designated camporee parking area. Scouts will need to walk to campsites. If you have a Scout that is not able to walk, please let us know ahead of time so we can make arrangements.

All patrols must submit the entire text of their skit or song for the Saturday evening campfire to the registration area by noon on Saturday for review. A decision as to the suitability of the skit or song will be available at scorecard turn-in.

## TO ALL SCOUTS AND LEADERS

There are no bonus points for carrying your Patrol Flag, giving your cheer, or even wearing your patrol patch. It is called SCOUT SPIRIT, and it is expected. DO YOUR BEST!

## VISITORS

Visitors are welcome, but must check in at Camporee Headquarters upon arrival and departure. Their vehicle must be parked in a designated area. They must back their vehicle into a designated parking space for easy evacuation in case of an emergency (See signs).

## PATROL METHOD

The purpose of Scouting is to teach leadership through the use of outdoor activities. These boys are led by their Patrol Leader who is responsible for his group of boys and answers to their Scout Leader. We ask that Scout Leaders do not interfere; let your boys have fun learning through exploration and hands-on activities. Remember, Scouting is a boy-run organization using the patrol method, yet you must have at least (2) two deep leadership present at the camporee.

## HEALTH AND SAFETY

General Rules

1. Units must keep their own areas clean and carry out their own trash. A SCOUT IS CLEAN.
2. Before a unit leaves their designated campsite it will be inspected by the CAMPOREE staff. When your Troop is ready to leave, the Senior Patrol Leader must request an inspection of their campsite. Upon satisfactory inspection, your unit will receive its patches.

## 3. Use of electronics

ARE ENCOURAGED DURING THIS CAMPOREE; units please use your discretion.

## 4. Medical Forms

All scouts and scouters are required to bring a valid BSA medical form - parts A and B to the
Camporee. The medical forms are to be kept by the Medical officer onsite and at checkout, have your
SPL and Scoutmaster ask for them. Forms can be found at
http://www.scouting.org/filestore/HealthSafety/pdf/680-001 AB.pdf

## 5. First Aid

Each troop must have its own first aid equipment. Scouts injured should first be attended to by their Leader. If medical attention is needed, notify the Medical staff.

## 6. Fires

If you plan on having a fire in your campsite, they must be in the designated campfire areas. You will need to have the fire pit cleaned of ashes before checking out.

## 7. Water

Water will be available at water fountains. But Be Prepared - still bring water. Be aware of dehydration. Each Scout should carry a canteen or water bottle of water with him to drink, and drink it!

## 8. Restrooms

Restrooms are available and found throughout camp. We ask both Scouts and Scouters to be respectful of the restrooms and keep them as neat and clean as possible when using them. Specific restrooms will be designated for adult and youth use only.

## 9. Equipment

Each unit will furnish all its own equipment and is responsible for all of its equipment.
Safety - Knives - Hatchets
No sheath knives will be carried or used by any scout. Hatchets will not be carried on any person.
You must have your Totin Chip present to carry your pocket knife (Staff will be checking).
10. Pets

NO PETS will be allowed at this Camporee, except for service animals.

## 11. Drug, Alcohol, and Tobacco Use

The Boy Scouts of America prohibits the use of alcoholic beverages and controlled substances at encampments or activities on property owned and/or operated by the Boy Scouts of America, or at any activity involving participation of youth members. Anyone found violating these rules outlined in the Guide to Safe Scouting will be asked to leave immediately. The use of drugs, alcohol and tobacco (including electronic tobacco products) is also prohibited around scouts.

## FLAGS

Each unit is requested to bring their unit flags (American, State, and Troop Flags) to the Camporee and display them in their campsites. We ask that you also bring your unit flags and patrol flags to the flag ceremony on Saturday morning. Patrol flags should also be brought and carried when competing in the events.

## UNIFORMS

Scouts must arrive and depart in Field or Class A uniforms and wear them to opening ceremony and campfire. Troop t-shirts are to be worn for activities throughout Saturday. All OA members are asked to wear sashes throughout the entire event, including campfire.

## CAMPSITE ASSIGNMENTS

We are expecting a large turn-out of units and scouts. Campsites assignments will be available at time of Check-in. Each troop should be together in a section of the site. The adult leaders' area must be clearly separate from patrols to help ensure campsite inspection is just of the scout's area and per BSA YPT Guidelines. Having multiple troops/units in the same campsite also fulfills the purpose of "Camporees" for scouts to have fellowship and get to know other scouts.

## PARKING

Parking will be permitted in the designated parking area ONLY. There will be no vehicles in any of the campsites. One vehicle per unit will be allowed at the campsite area to drop off equipment only and then must return to the designated parking area.
If your unit has a trailer, it may be left in the campsite parking area without a vehicle. If your unit is leaving after the campfire and you need to pick up your gear, you can get a pass at registration.
There is only one pass per unit within camp so please think ahead and pre-arrange the use of this pass. All vehicles remaining at the camporee will be issued a parking pass at registration, which must be filled out and displayed in the front windshield of the vehicle. Please remember to back your vehicle in, and carry your keys with you at all times in case an evacuation is necessary.

## CHECKOUT PROCEDURES

## Saturday Evening Checkout

If your unit is checking out on Saturday Evening they must first have packed up all of their equipment. Then have your SPL and Scoutmaster go to the lodge and tell them that you are checking out. Then the staff will inspect the site and upon completion of the inspection, the SPL/SM will return to the lodge for packet, patches. Once completed your unit is free to leave.
There will be no checkout or departures during the campfire.

## Regular Checkout

Regular Checkout will begin after Scout's Own on Sunday; no checkouts will be done prior to Scout's Own. Your unit must have cleaned up the campsite and have packed away all of your equipment before checking out. Once your unit is ready for inspection, have your SPL and Scoutmaster go to the lodge and tell them that you are checking out. Then the staff will inspect the site and upon completion of the inspection the SPL/ SM will return to the lodge for packet, patches. Once completed your unit is free to leave.

## SPECIAL EVENTS

## Cook-off Competitions

This year's cook-off theme is based on the STEM concept and how well do you use science, technology and engineering or some scientific research to create a tasty dish. Are you an Alton Brown type of Scout when it comes to cooking? Some examples might be using a solar oven, cooking on a car dash or engine, making use of chemical reaction for cold or hot dish, dehydrated foods or EMRs that can cook or freeze your meal in front of our judges. We are looking for creative alternative ways to cooking. The more scientific, the more creative engineering and the better use of technology you can prepare your dish the better.
Scoutmaster Cook-off
Your Scoutmaster will be going head to head with other Scoutmasters in making the best "Pi" ever in this year's Scoutmaster Cook-off. Not only will they be required to bake their "Pi" they must also measure its area, circumference, radius and diameter using the constant Pi (i.e. $A=\pi r^{2}$ )

## Patrol Cook-off

Your patrol will be going head to head with other patrols in making the main course in this year's Patrol Cook-off. Not only will you prepare the main course, but you will need to provide a recipe that includes at least 5 ingredients and lists them using both metric ( $\mathrm{ml}, 1$, etc.) and united states measures (tsp, Tbsp, fl oz, C, pt, gal etc), and shows using an equation how each measure was converted from either US measure to metric or metric to US measure. Each recipe must include the percentage of each ingredient in the total and also the ratio of each ingredient as compared to the largest volume ingredient used.

## Cardboard Boat Races

Scouts will construct a boat out of duct-Tape and cardboard. The boat must hold two scouts and will be raced across the pool. There will be points for creativity etc., and if the boat is not fully constructed out of card board and duct tape; 25 points will be deducted upon entering. Each unit will be provided with cardboard and 1 roll of duct tape at check-in. You may bring additional cardboard and duct tape if you wish. The race is scheduled for 4PM on Saturday afternoon at the pool. All
boats need to be constructed on site and before races.

## Popsicle Bridge

Patrols are challenged to build a bridge using popsicle sticks and Elmer's white glue. Bridges are to be built prior to the camporee. Scouts are encouraged to work together on this project. Adult leaders should share ideas IF ASKED. Scouts should use their thoughts to design and build the strongest structure they can.
Use ONLY a maximum of 100 standard popsicle sticks. Build a bridge that will span a distance of 18 ". The bridge will need to be at least 3 " wide. The bridge does not need to have a solid surface or road. A standard Popsicle stick is $4.5 "$ long and $3 / 8$ " wide. DO NOT USE jumbo sticks, which are 6 " long and $11 / 16$ " wide.
The bridge will be brought to the judging area at the camporee. The bridge will be placed onto two supports that are 18 " apart. Weight will be applied in the center of the structure until it fails. The goal is to build a bridge that will support the most amount of weight.

## PATROL FLAG COMPETITION RULES

- Only one (1) Patrol Flag may enter the competition.
- Each flag must be clearly marked with the unit number and patrol name.
- Patrol flags should identify patrol members.
- Flags must be made from leather, wood, cloth or other natural materials.
- Paper or plastic flags will not qualify.
- Flags may be any shape or size.
- The flag must be attached to a pole.
- Flags should display patrol award ribbons.
- Flags should represent the Scouts' work, not the adults.
- Patrol Flag judging will include, but not be limited to: Craftsmanship, Durability, Portability and use of scout skills, Artistic Design and Originality.
- Boy Scouts of America - or - BSA must be on the flag.
- BONUS POINTS for the use and incorporation of STEM technology along with having our District and or Council name on the flag.


## PATROL EVENTS

Events at this camporee will be on a first-come, first-serve basis and Scout patrols may only be able to select some of the activities in each of the four areas (Science, Technology, Engineering and Mathematics). In addition, patrols may compete in the Popsicle bridge, cardboard boat race, and patrol cook-off activities.

## SCIENCE

Hydro Power - Water and air powered rockets. Build one then see how high it can fly Chemistry - mentos and soda far can this reaction fly.
Archery - Learn the science behind the sport of archery and do some shooting.
Power of pressure Learn the science behind BB guns and the first 30 scouts who register with adult supervision and transportation can go shooting 22's at the local firing range in Winton (Get on the list in the lodge building).
Kinetic energy- Study the science and art of tomahawk flight

## TECHNOLOGY

Solar Power- Can you use the sun to cook and melt metals? What other ways can you make use of the sun?
Air Power - Air powered rockets how high can yours go?
Fire Building- test four types of fires and see which boils water faster

## ENGINEERING

Friction can be stronger than you think - make rope connect paper without staples, glue or tape. Simple Machines - Use your skills and creativity to build different types of machines on your own scout staff.
Monkey bridge - All engineering ideas start with models and prototypes, from napkins, computers, and 3D. Here you will design your own Monkey Bridge and comparing it to one made by the experts of Troop 119.
Rube Goldberg Machine - Ever play Mousetrap? Try your hand at building a large marble rollercoaster course with everyday objects.

## MATHMATICS

Code Breaking - Make a code and try to break one.
GPS - Geocaching - Can you find the cache and bring back the prize?
Knot Science - multiply your strength with ropes and block and tackle.
Large 3 person Sling Shots - How far and accurate can you as a team shoot an object?
30 scouts with transportation and accompanied by adults can sign up to go to a rifle range nearby in Winton and shoot 22's at 1 p.m. on Saturday and another 30 at 9 a.m. on Sunday. Sign up in the lodge first-come, first-served.

NOTE: EVENTS and DESCRIPTIONS ARE SUBJECT TO CHANGE BEFORE THE ACTUAL CAMPOREE EVENT.

## Campsite Assessment

Each campsite will be assessed sometime during the day on Saturday. The following criteria will be used:
Rio del Oro District Camporee
Greater Yosemite Council, BSA
Campsite Assessment Record
Unit: $\qquad$ Campsite: $\qquad$
Boy-Led Troop

|  | $\mathrm{Y} / \mathrm{N}$ | Notes |
| :--- | :--- | :--- |
| Duty Roster |  |  |
| Subtotal |  |  |

## Health and Safety

|  | $\mathrm{Y} / \mathrm{N}$ | Notes |
| :--- | :--- | :--- |
| Campsite Neat |  |  |
| Tents |  |  |
| Food |  |  |
| Drinking Water |  |  |
| Hand Sanitizer present |  |  |
| Trash |  |  |
| Tools Stored Properly |  |  |
| Campsite Boundary |  |  |
| Youth Protection |  |  |
| Subtotal |  |  |

## Scout Spirit

|  | $\mathrm{Y} / \mathrm{N}$ | Notes |
| :--- | :--- | :--- |
| Flags |  |  |
| Gateway |  |  |
| Subtotal |  |  |

## SCORING

10-12 Y's = full points
7-9 Y's = 70\% of points
$4-6$ Y's $=50 \%$ of points
$0-5 \mathrm{Y}$ 's $=0$ points

## Indicators

## Boy－Led Troop

［ ${ }^{\text {＿Duty Roster }}$
－A duty roster is posted and filled out
－SPL，ASPL，and Patrol Leaders are listed
－Appears duties are allocated equally

## Health and Safety

［⿴囗十一 Campsite Neat
－No trash
－Loose items secured from wind
$\square$＿Tents
－Tents are spaced appropriately
－Guy wires and tent stakes marked
－Water jugs are placed by each tent
－Water jugs are full
$\square$ Food
－Food and drinks are stored appropriately
－Food preparation area is neat
－Dishes and utensils are clean
－Sanitation station is evident
$\square$＿Drinking Water Present
－Appears there is sufficient water present for needs of unit
$\square$ Bathroom clean
－No trash
－Toilets are flushed
$\square$ Hand Sanitizer present
－Sufficient hand sanitizer available
$\square$＿Trash
－Trash is in appropriate container
$\square$＿Tools stored properly
－Tools stored to protect tools and people
$\square$ Campfire Ring
－Area around ring is clear of combustible materials
－No evidence of fire activity
－Water jugs are placed near fire ring
－Water jugs are full
$\square$＿Pathways clear
－Trip hazards are eliminated on pathways in campsite
$\square$ YPT
－Youth Protection policies are followed
－$\quad$ Adult tent area is separated from youth tent area
－ －Adult／Youth and Male／Female signs are being followed at bathroom

## CAMPOREE SCHEDULE

Friday<br>6:00 PM Registration<br>7:00 PM Still to be determined<br>8:30 PM Scoutmaster and Senior Patrol Leader Cracker Barrel and Meeting<br>9:30 PM Staff Meeting<br>11:00 PM Lights Out<br>\section*{Saturday}<br>6:00 AM Wake up<br>7:00-8:30 AM Breakfast<br>8:15 AM Flag Ceremony<br>8:30 Trading post open<br>9:00-10:30 AM Morning Activities session 1<br>10:30 - 12:00 PM Morning Activities session 2<br>Campsite Inspections<br>Noon Songs and Skits due to Registration<br>Noon-1:00 PM Lunch<br>1:00-2:30 PM Afternoon Activities session 3<br>2:30-4:00 PM Afternoon Activities session 4<br>4:00 PM Popsicle Bridges judging at Pool<br>4:15-4:45 PM Cardboard Boat Races, Patrol Flag Competition at Pool<br>5:00-6:30 PM Dinner<br>6:30 PM Scoutmaster Cook-off - Dish due at Registration Area<br>6:30 PM Patrol Cook-off - Dish due at Registration Area<br>7:00 PM Campfire Starts - OA Callout<br>Callout Ceremony<br>10:00 PM Staff Meeting<br>11:00 PM Lights Out<br>Sunday<br>8:00 AM Scout's Own (at Fire Bowl)<br>Followed by Cleaning Up Campsites



## Camporee Unit Roster

This form must be turned in by the SPL and/or Scoutmaster, who in turn will hand this form over to the registration personnel.
Unit Type: Troop Team Crew (Circle One) Unit Number:
Total \# of Adults:
Total \# of Scouts: $\qquad$
Unit Leader's Name: $\qquad$
Phone Number
E-mail: $\qquad$
SPL's Name: $\qquad$ E-mail: $\quad \square$
Phone Number: $\qquad$
Adult Leaders Attending: $\qquad$
$\qquad$
Patrol Name: $\qquad$
Patrol Leader: $\qquad$
Patrol Members: $\qquad$
$\qquad$
Patrol Name: $\qquad$
Patrol Leader: $\qquad$
Patrol Members: $\qquad$
$\qquad$

Patrol Name:
Patrol Leader:
$\qquad$
Patrol Members: $\qquad$
$\qquad$
Patrol Name: $\qquad$
Patrol Leader: $\qquad$
Patrol Members: $\qquad$
$\qquad$

Patrol Name: $\qquad$
Patrol Leader:
Patrol Members: $\qquad$

## Scoutmaster Cook-off Registration Form

This form must be filled out by each troop and turned in to the SPL and/or Scoutmaster, who in turn will hand this form over to the registration personnel at check-in.
Unit Type: Troop Crew Team (Circle One)
Unit Number:
Unit Leader (Who will be competing) Name: $\qquad$
Name of the Dish:
How are you planning on using STEM in your preparation of your "Pi"? $\qquad$
Ingredients: (list amounts in both metric and US measures and show an equation for calculating one measure from the other.)


## Patrol Cook-off Registration Form

This form must be filled out by each patrol and turned in to the SPL and/or Scoutmaster, who in turn will hand this form over to the registration personnel at check-in.
Unit Type: Troop Crew Team (Circle One)
Unit Number:
Unit Leader (Who will be competing) Name: $\qquad$
Name of the Dish:
How are you planning on using STEM in your preparation of your dish? $\qquad$

Ingredients: $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Percentage of each ingredient: (must total 100\%)

Ratio of each ingredient to the top ingredient on your list above:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Skit or Song Submission Form

This form must be filled out by each troop or patrol and turned-in to the SPL and/or Scoutmaster, who in turn will hand this form over to the registration personnel by noon on Saturday.
Unit Type: Troop Team Crew (Circle One) Patrol Name (if applicable)
Unit Number:
Skit Song (Circle One)
Name of skit or song:
Entire Text of skit or song $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$ $\longrightarrow$
$\qquad$
$\qquad$


