WE CU VOLUNTEER

Now Accepting Proposals!!!
For the National 4H Volunteer Conference
Rock Eagle 4-H Center, Eatonton, GA
September 26-29, 2019 (Thursday - Sunday)

Do you have a successful program or activity(s) that others would benefit from learning?! Consider sharing your experiences and skills with volunteers across the country by submitting a workshop proposal to the National 4-H Volunteer Conference. Don’t be intimidated by the title, this conference has a very laidback and friendly atmosphere. Held at Georgia’s largest 4-H center, participants at this conference enjoy a very nice 4-H camp setting, hands-on workshops, and time to relax and unwind. Workshop proposals should tie back to one or more of the following categories:
- Healthy Living
- Civic Engagement
- Science
- Club Management
- Technology Strategies
- Personal & Volunteer Development.

There is a $30 conference registration discount for one presenter per workshop selected! Priority deadline for proposal consideration is February 1, 2019. Presenters should hear a response by April 1. Learn more at https://www.4hvcoss.com

“Making the Best Better!”
4-H Motto

Upcoming Statewide Programs:

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<tr>
<th>Event</th>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>Livestock Knowledge College</td>
<td>January 12, 2019</td>
<td>Youth and adults gain multi-species knowledge (for all ages)</td>
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<tr>
<td>Healthy Habits Summit</td>
<td>January 25-27, 2019</td>
<td>Teens learn how to be healthy lifestyles leaders in their community</td>
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<td>Forestry Clinic</td>
<td>February 1-3, 2019</td>
<td>Opportunity to learn about forestry (for ages 9-18 years)</td>
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<td>Presentations Contests</td>
<td>February 9 (Jr) &amp; March 2 (Sr), 2019</td>
<td>Opportunity for youth to showcase their knowledge (for ages 9-18 years)</td>
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<tr>
<td>Junior Weekend</td>
<td>February 8-10, 2019</td>
<td>Use promocode HOLIDAY by Jan. 1 to get $15 off! (for ages 9-13 years)</td>
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<tr>
<td>Honey Bee Project</td>
<td>March to August 2019</td>
<td>Independent-study project to learn about beekeeping (for ages 5-18 years)</td>
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<tr>
<td>Senior Teen Weekend</td>
<td>March 1-3, 2019</td>
<td>Use promocode HOLIDAY by Jan. 1 to get $15 off! (for ages 14-18 years)</td>
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<tr>
<td>Engineering Challenge</td>
<td>March 30, 2019</td>
<td>Six different STEM challenges to choose from!!! (for ages 5-18 years)</td>
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Register by Jan. 8th
Register by Jan. 8th
Register by Jan. 18th
Register by Jan. 25th
Register by Jan. 25th
Register by Feb. 1st
Register by Feb. 15th
Register by Mar. 1st

T. Ashley Burns, Ph.D. ● 4-H Assistant Director & Volunteer Specialist ● 2057 Barre Hall, Clemson, SC, 29634 ● taberp@clemson.edu
Monthly 4-H Club Activity Idea
By Ashley Burns

5-Minute Engineering Challenges

Objective: To generate interest in the Engineering Challenge and build confidence in STEM

Age Range: All ages

Hands-on Activity: use inexpensive materials to implement a variety of simple challenges

Life Skills: HEAD – planning/organizing, decision making, learning to learn;
HEART – communication, sharing;
HANDS - self-motivation;
HEALTH – character, self-discipline.

Introduction
Science programs provide 4-H youth the opportunity to learn about Science, Technology, Engineering and Math (STEM) through fun, hands-on activities and projects. 4-H programs use hands-on activities in robotics, rocketry, electrical engineering, and computer science to teach problem solving, creative and critical thinking, and build excitement for engineering and technology. Use the Experiential Learning Model and Engineering Design Process to reinforce concepts:

1.) defining the problem
2.) designing solutions
3.) optimizing design solution

Materials & Methods
The South Carolina 4-H Engineering Challenge is an opportunity for youth to showcase their mastery in a particular area of STEM through a fun and safe competitive platform.

See the 5-Minute Engineering Challenges on page 3 for materials and method options or other activities in the 4-H STEM Lab under “Additional Resources”.

Conclusion
Science is fun and a great way build confidence of youth in their abilities. In 4-H, our focus is more on the process than the outcome. Even with ‘failure’, lessons are learned and knowledge is applied. Whether it is working as a team or an individual, youth gain skills to help them lead for a lifetime.

Additional Resources:


Continued on page 3
5-minute
Engineering Challenges
T. Ashley Burns, November 16, 2016

**Float your Boat**

**Materials:**
- 12”x12” pieces of aluminum foil
- 1” pieces of tape
- weights (crayons, pennies, etc.)
- water containing tub

**Objective:**
- To apply concepts of buoyancy, water, and physical science and relate it to real-world situations.

**Activity:**
- Groups receive 1 piece of foil and 2 pieces of tape, which they will use to construct a boat that will hold the maximum weight possible.
- Use weights to test the boats after a predetermined time limit.

**Reflection:**
- Why did some designs work better than others? How does this relate to the real world? Do you know what a barge is?
- What would you do differently next time?

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**Strength of Paper**

**Materials:**
- index cards
- books or reams of paper

**Objective:**
- To apply concepts of physics and test the structural strength of a seemingly weak object.

**Activity:**
- Groups receive 5 index cards to fold (no glue or tape) to create a base that will hold the maximum weight possible.
- Use books or reams of paper as weights to test the structural strength of the index cards.

**Reflection:**
- What design did you use and why?
- Did the results surprise you?

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**Straw Tower**

**Materials:**
- coffee straws or pasta
- marshmallows or gumdrops

**Objective:**
- To apply concepts of physics and architecture.

**Activity:**
- Groups receive a set number of straws and marshmallows to construct the tallest tower possible in a predetermined time frame.
- Use a yard stick, string, tape measure, etc. to determine the tallest height.

**Reflection:**
- What effects did the following have on your tower: design of the base, quality of construction, amount of resources, etc.