Several 4-H stories have been highlighted on Clemson University’s Media Relations page. We are so proud of all the hard work volunteers, agents, and 4-H’ers are doing across the state and country! Check out the latest 4-H news, including a featured article from National 4-H Congress, here: http://newsstand.clemson.edu/?s=4-H

South Carolina 4-H is growing with the addition of 3 new 4-H Agents since September 2015! By the release of the next issue of this newsletter, we hope to have at least 3 more 4-H Agents in place. Thank you for your support in making these new hires possible and, please, welcome our new agents to the South Carolina 4-H family.

Email Ashley (taberp@clemson.edu) if you have an activity lesson you would like to share! An optional activity lesson is included in this newsletter for you to incorporate into your monthly club meetings.

4-H Volunteer Conference of Southern States
Rock Eagle 4-H Center - Eatonton, GA
October 1-4, 2015

By Betty Osgood, Charleston County 4-H Volunteer

The 4-H Volunteer Conference of Southern States was held October 1-4, 2015 at the Rock Eagle 4-H Center near Eatonton, Georgia. The
The mission of the Volunteer Conference of Southern States is to provide experiential educational opportunities to 4-H volunteers and staff across the southern region, which is designed to improve the quality of 4-H programming in their own activities, projects, clubs and communities. The vision of the conference is to engage volunteers and staff across the region in contemporary educational opportunities that will impact, enhance, and foster quality, excellence and achievement in the essential elements of youth development programming.

South Carolina 4-H Volunteers, Doris McGoughan, Wilma Weeks, Phyllis Brown, and Betty Osgood and Ashley Burns, 4-H Assistant Program Director, joined nearly 125 delegates from the states of Florida, Georgia, Virginia, North Carolina, Kentucky, Tennessee, and Louisiana for an educational, full-packed conference.

"4-H: Sharing Our Stories" was the theme of this third year conference of Southern States and each enjoyed hearing others tell their 4-H story, as well as sharing their own. Each gained a wealth of knowledge in attending the workshops, service share fair, and learning labs. Featured speakers were Patrick Grady, TNT Enterprises presenting "That's My Story & I'm Sticking to It", Dr. Ken Cup III, Extension specialist for volunteerism and adjunct associate professor at the University of Kentucky, presented "12 Commandments of Volunteers" and the talent of Georgia 4-H Clover & Company, youth ages 10-18, presentation by its singers, dancers, and musicians.

Betty Osgood represented South Carolina on the Southern Region Volunteer Advisory Group and also assisted Virginia in directing a project "Bookmarks for Literacy" in the Service Share Fair.
Quotes from participants:

“I learned a lot of new ideas for teenagers! The programs were just wonderful; put together in a way to really attract middle-school children.”

~Wilma Weeks

“Attending the 4-H Conference of Southern States gives me the opportunity to expand myself as a better 4-H leader by obtaining valuable information attending workshops and learning labs, networking with other volunteers across the southern region, and being empowered and inspired hearing key speakers.

~Betty Osgood

Mark your calendars for next year’s 4-H volunteer conference of Southern States!!!

October 6 - 9, 2016 (Thursday - Sunday)
at Rock Eagle 4-H Center
http://vcoss.weebly.com/

South Carolina 4-H members win second national championship

Scott Miller, Public Service Activities
November 12, 2015
CLEMSON — South Carolina 4-H’ers took a national title for the second straight year at the Eastern National 4-H Horse Roundup last weekend in Louisville, Kentucky...Click HERE for more.

S.C. 4-H members pass healthy living challenge

Scott Miller, Public Service Activities
November 9, 2015
COLUMBIA — High school students from Florence County will test their culinary skills on a national stage after winning the 4-H Healthy Lifestyles Fitness Challenge last month...Click HERE for more.

Hot off the presses!

Check out these South Carolina 4-H stories highlighted on The Newsstand, the Clemson University’s Media Relations webpage.

Also, visit the South Carolina 4-H Livestock webpage to get information on livestock events, show calendars, and CU in the Barn newsletter.
On Thanksgiving weekend, over 900 delegates from 4-H programs all across the country converged on Atlanta, GA for the 94th Annual National 4-H Congress. The 4-day weekend was packed with a mix of educational, service, and recreational activities. We had an amazing group of young people represent South Carolina this year! Carey Herndon served as our Youth Delegate; Rae’L Jackson was our Flag Bearer; Micah Metts provided the 4-H Entertainment at the Gala on our final night with a piano performance; and Dr. Pam Arden, State 4-H Leader, and Ms. Stacy Goff, Kershaw Co. Volunteer, served as chaperones. All of the youth worked hard and learned a lot. Thank you to everyone who made this wonderful 2015 National 4-H Congress Experience possible!
4-H certainly is growing here in South Carolina! We are proud to announce the hiring of 3 new County 4-H Agents, serving Aiken, Charleston, Dorchester, Edgefield, and Williamsburg Counties. (We also have 3 more agents, slated to start this December in Greenwood, Lexington, and Richland Counties!)

A big “THANK YOU” to our South Carolina State Government and everyone who as advocated on behalf of Clemson Extension and 4-H. We are very grateful for your support and look forward to a bright future!

Help us welcome our new 4-H Agents!!!

Charleston – Jennifer Scales

Jennifer serves at the 4-H Youth Development Agent for Charleston and Dorchester Counties. She believes providing youth with educational hands-on programs and community involvement opportunities leads to more engaged and active citizens later in life. Her background includes a Master of Science degree in Environmental Studies from the College of Charleston and a Bachelor of Science degree in Biology from the University of Georgia. She has experience with both formal and informal education programs, as well as program development. Jennifer can be reached at jscales@clemson.edu or 843-730-5202.

Williamsburg – Carly Smith

Carly Smith coordinates the 4-H programs in Williamsburg County. Carly provides county programs to youth ages 5-19. Carly serves on the 4-H Natural resources committee, which a large amount of her programming revolves around. Carly graduated in 2012 from Clemson University with a B.S. in Political Science. She has served as the Program Assistant in Williamsburg County for the past two years. Carly is excited to begin her new role in Williamsburg! Carly can be reached at carly2@clemson.edu or 843-355-6106 ext. 114.

Aiken/Edgefield – Julia Cox

Julia Miller Cox joined the Clemson University Extension Service on November 11th as a 4-H/Youth Development Agent in Edgefield and Aiken Counties. Growing up in Edgefield, South Carolina, Julia was very active in 4-H and participated in the shooting sports club, general county club, as well as competing on the state level for the Wildlife Food Plot Project. She was also very active with the Strom Thurmond High School FFA. Julia’s experience with 4-H continued as she attended Clemson University where she interned with the McCormick County 4-H Clubs under the supervision of Jaime Pohlman. She graduated in May 2015 with a bachelor’s degree in Agricultural Education. Julia can be reached at Julia7@clemson.edu or 803-649-6297.
Upcoming Dates & Deadlines

12.9.2015
*Early Bird Registration Deadline for Miss 4-H Pageant*

1.1.2016
Registration Deadline for Miss 4-H Pageant

1.9.2016
Miss 4-H Pageant – Laurens Co.

1.13.2016
Registration Deadline for Healthy Lifestyles Summit

1.22.2016
Registration Deadline for Jr. Weekend

1.29-31.2016
Healthy Lifestyles Summit – Columbia, SC

2.5-7.2016
Jr. Weekend – Camp Bob Cooper

2.2016 (mid-month TBA)
Registration Deadline for Forestry Clinic

2.19.2016
Registration Deadline for Sr. Teen Weekend

3.4-6.2016
Sr. Teen Weekend – Camp Long

Forestry Clinic – Webb Wildlife Center

Registration Deadline for Engineering Challenge

3.16.2016
Legislative Day – Columbia, SC

Shooting Sports Fundraising Tournament – Swansea, SC
Thank you, 4-H Volunteers, for all you do!

As always, we like to hear from you and how we can better enable you to work with youth. Also, if you would like share a success story or an innovative idea in this newsletter, please email taberp@clemson.edu.

Workshops will include:
* Enhance your culinary skills and nutrition knowledge
* Hands-on and demonstrations with Chefs
* Participate in Food Science Labs with Clemson Students
* Equip the participants to be ready to assist in a Summer Day Camp
* Opportunity to meet youth from across South Carolina that have the same interest

What to bring:
* Toiletry items
* Casual clothing
* Closed-toe shoes - i.e. tennis shoes - No boots or high heels

Who is this for?
* All high school students that want to make a positive impact in their community

Cost:
* $25 per person covers all lodging & meals

Location:
* Lower Richland High School, Hopkins/Columbia, SC

For more information & registration, contact: Miriam Roman at mroman@clemson.edu or 803-968-5788

Animals expressing themselves through lyrics. Image credit: 4-H, Original photo by Stasha B Photography
**Lemon Lights!**

**Objective:** To give youth a greater understanding of how electricity works and hands-on experience with a circuit in a safe environment.

**Age Range:** Material content best suited for grades 8-10, but coverage of material and the depth of information can be adjusted for all ages.

**Hands-on Activity:** Using knowledge of basic electricity to assemble a simple circuit; lemons (or limes) will serve as batteries to power a small LED light bulb.

**Life Skills:**
- **HEAD** = critical thinking, problem solving, decision making;
- **HEART** = social skills, conflict resolution, communication, cooperation;
- **HANDS** = leadership, contributions to group effort, teamwork;
- **HEALTH** = self-esteem, character, managing feelings, personal safety.

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**Leading Questions & Information**

What is one the first things you do when you get up in the morning, last thing before bed, or every time you enter/exit a room?

*You flip a light switch! We often take electricity for granted in our everyday lives (until the power goes out!).*

What are some basic words we use when talking about electricity?

*Most people think of batteries, watts, volts, amps, AC vs. DC, circuits, electrodes, etc.*

What do these words mean?

*Click [here](#) for a fairly comprehensive list of electrical terms and their meanings.*

What’s in a battery? (Show a typical alkaline battery)

*Within a battery, a chemical reaction takes place between an electrolyte and electrodes. An electrolyte can be a liquid acid or a dry chemical. The electrodes are two different conducting materials, such as metals. Batteries come in two categories: dry cell and wet cell. Dry cells (such as flashlight batteries) are the alkaline batteries that use a powder chemical for an electrolyte; wet cells (such as car batteries) use acids as the electrolyte.*

A citrus fruit, such as a lime or lemon, can act as a weak battery. What is inside the fruit that acts as an electrolyte?

*Citric acid! You can make a wet cell battery using the juice of a lemon, which is a mild acid, as the electrolyte.*

Does arrangement of a circuit affect its energy output and consumption?

*YES! Compare simple and parallel circuits.*
Lemon Lights!

Materials Needed:

- Jumper wires (5 per group)
- LED bulb (1 per group)
- Lemons or limes (4-6 per group)
- Galvanized nails (4-6 per group)
- Pennies or copper wire (4-6 per group)
- Voltmeter (1 total, can share between groups)

**Step 1:** Knead and roll the lemon to release the juices (electrolytes) within the fruit. Push a nail into one end of the lemon and the penny or wire into the other end (scissors or a knife facilitate this). The galvanized nail is coated in zinc and serves as the negative electrode; the copper serves as the positive electrode. (Electrons will always flow from the negative electrode to the positive electrode. “Run to Red” is the phrase that often helps people remember the direction of this movement.)

**Step 2:** Test the speed of this electron movement by measuring the voltage with a volt meter. A reading of < 1.0 volts indicates that a single lemon battery is likely not sufficient to power a light bulb.

**Step 3:** Connect multiple lemon batteries together (negative end to positive end, just like you would connect alkaline batteries). You want to reach approximately 3.5 to 4 volts to power a small LED. (Light emitting diodes are designed to work on very low voltages and connecting an LED to an alkaline battery >2 volts will damage it.) Once your volt meter is reading in that range, replace it with an LED connected to the lemon battery.

**Step 4:** Experiment with different configurations (series vs. parallel), different electrode (quality of metals can affect conductivity) or electrolyte sources (vinegar is a weak acid also), and/or other small battery-operated devices that could be powered by the ‘home-made’ battery. You could have a competition among groups to see who can get the greatest voltage out of their battery.

Images from Trackstar 4 Teachers
http://trackstar.4teachers.org/trackstar/ts/viewTrackMembersFramesMember.do;jsessionid=1F2AC6C3629CC012942B37EF908625F7?key=org.altec.trackstar.om.TrackMember%3Btrack_member_id%5B682654%5D

Additional Resources: Content for this Monthly 4-H Activity Idea was provided by C. H. Holland, UPIC Intern and Clemson University Agricultural Education major. This material was presented by Ms. Holland to her AgEd peers in a 20-minute, microteaching lesson. The lesson was recorded and can be viewed by clicking the YouTube icon below. The full lesson plan, accessed by clicking on the Google Doc icon, is expected to take approximately 90 minutes.