Here’s another opportunity to shine a spotlight on our amazing youth in South Carolina!!!

American Cattlemen, Bekaert and 4-H want you to show us your #Trueleaders with the Bekaert Grow #TrueLeaders Contest. Entering is easy! Simply upload a photo of your #TrueLeader showing responsibility & working hard, tell us about your photo (50 words or less). Click the link for more details:
http://www.americancattlemen.com/contests/trueleaders

Deadline: July 24, 2016
Monthly 4-H Club Activity Idea

Hide and Seek

Objective: to allow for self expression and gain knowledge about a specific technique.

Age Range: All ages.

Hands-on Activity: Create a hidden message, work of art, or design using lemon juice and revealing it using a heat source.

Life Skills: HEAD = learning to learn, decision making; HEART = social skills, communication; HANDS = marketable skills; HEALTH = self-esteem, character, personal safety.

Introduction

Today, you are going to learn the secret art of using invisible ink!!! Do you know what steganography is?

Greek origin – “steganos” meaning covered and “graphia” meaning related to writing.

Steganography is the practice of concealing messages or information using a special technique or tool, like invisible ink!

In what ways has steganography been used?

Governments, militaries, spies, fun times with friends, artwork, and the list goes on!!!

Invisible ink and encryption have been used for thousands of years for many different reasons. You are learning this technique today just for fun!

General Washington’s spies during the Revolutionary War reportedly used the same technique to transport and deliver messages undetected.

Part 1 - Hide

Materials:
- Paper
- Lemon juice (bottle or fresh squeeze)
- Small cup or bowl to hold juice
- Q-tip or other utensil to ‘paint’

Allow for self expression (within the code of conduct, of course) and let youth create their own hidden message, artwork, or design with lemon juice on the paper. Allow the paper to air dry (approximately 20 min).

Part 2 - Seek

Materials:
- A heat source*

This is the tricky part!!! You must heat the paper to reveal the invisible ink. *We
recommend safe and supervised handling of a small appliance, such as a hair straightening iron, a clothes iron, or 100-watt incandescent bulb for this part. A hair dryer (unless it’s really hot) has limited success. An oven, candle, or heat gun will also work, just make sure the heat source warms the paper only to the extent that it darkens the invisible ink. You do not want to catch the paper on fire. (Be prepared with water and/or a fire extinguisher just in case!) It takes a little patience for the ink to start to appear, but once it starts, it darkens quickly. For younger audiences, you may want to develop the ink yourself, depending on the heat source you are using. Allow youth to discuss what they created and why.

**Discussion Questions**

What message, art, or design did you create?
What color does your invisible ink show up as?
Why?
Are there any other “inks” that will work the same way?
If you did this activity again, what would you do differently?

What would you say to help someone doing this activity for the first time?

*The brown color of the lemon juice comes from oxidation of carbon compounds when heated. (If someone wants to be VERY technical, the color change occurs when at least one hydroxyl group, –OH, on the organic acid in lemon juice is replaced by an alkoxy group, –O-alkyl, creating an ester.)*

*Other solutions, most of which are organic compounds that oxidize when heated, that can act as invisible ink include apple, orange, and onion juices, milk, soapy water, vinegar, coke, and honey/sugar solutions.*

**Conclusion**

Creating and using invisible ink is a great way to discover the science in our everyday world. Allowing youth to explore alternatives to this activity and express their personal interests in a “hidden message” is a fun and easy way to build self esteem, challenge scientific thinking, and promote personal safety.
Volunteer Leaders Symposium
August 13, 2016
9am – 4pm
Center for Advanced Technical Studies
916 Mt. Vernon Church Road
Chapin, SC
Cost: $15.00

Register online @ clemson.edu/4h/4h_volunteers
Deadline: July 29, 2016

For questions, contact Ashley Burns at taberp@clemson.edu

Clemson University Cooperative Extension Service offers its programs to people of all ages, regardless of race, color, gender, religion, national origin, disability, political beliefs, sexual orientation, marital or family status and is an equal opportunity employer.

Morning Sessions (9am – 12pm)

How to handle an emergency
CPR/First Aid certification; expires every 2 years
- 3 hour course!!!

Connecting to National 4-H
learning about opportunities to connect to & be involved in the National 4-H movement – 1 hour

Empowering our Youth
how to teach youth to lead in clubs, communities, & schools – 1 hour

How to talk to your Agent
effective tools for communicating with your Extension Agent for an effective, working relationship – 1 hour

Protecting our Youth
risk management, behavior management, & child abuse/reporting – 1 hour

Positive Youth Development
basic child development & positive discipline practices – 1 hour

Afternoon Sessions (1pm – 4pm)

Defensive Driving
Be certified to haul youth safely; expires every 3 years – 3 hour course!!!

Cooking up a healthy life
special opportunities in cooking and nutrition – 1 hour

Experiencing nature
using your outdoor classroom to your greatest advantage – 1 hour

Lessons in livestock
updates on the horse program & opportunities for involvement – 1 hour

National Youth Science Day
introducing the 2016 NYSD Challenge – 1 hour

Perfecting the portfolio
See examples and learn to guide youth to submit a winning 4-H portfolio – 1 hour

4-H: Green & Growing
strategies for teaching and implementing youth gardening programs – 1 hour
August 13, 2016
9am – 4pm

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Deadline: July 29, 2016. Late registrations will not be accepted. Entries may be mailed.

2. Attach Resume
3. One letter of reference (no family members)
4. Health/Permission Form
5. $25.00 Registration Fee (check payable to Clemson University)

Complete this cover sheet with all signatures.

Application Requirements:

- Complete the 4-H Ambassador Program application
- Include a letter of recommendation
- Submit a copy of your school transcript
- Attend the training session
- Meet all deadlines

Training Assignments will be distributed at the Ambassador Training on August 13.

Events:
- JCI/4-H Teen Weekends
- 4-H Club Camps
- Forestry Clinic
- 4-H Shooting Match
- Clemson’s Dog Camp
- 4-H Summer Camp
- 4-H Enrichment Event
- SC State Fair
- 4-H Field Day
- SC State Congress
- 4-H Project Work
- Speech Contest

Please indicate if you require a vegetarian meal for lunch.

Contact Information:
- Name:
- Address:
- City:
- Zip:
- Email:
- Phone:
- Cell:

Please check box if you require or prefer a vegetarian meal for lunch.

Deadline: July 29, 2016.

improvement day
Clemson, SC 29634
864.656.4195
9-5pm Monday-Friday
August 1-2, 2016
Cooperative Extension
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