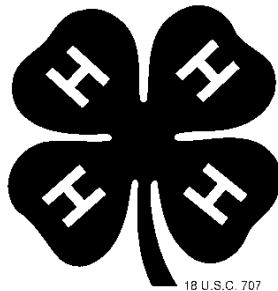


Host Site Facilitator's Guide

2013-2014 North Central Region 4-H Volunteer e-Forum

Exploring the Science of 4-H Projects

**Tuesday, February 3, 2014,
8-9:30 p.m. (ET) (local activities begin at 7:30)**



**JOIN  THE
REVOLUTION
OF RESPONSIBILITY**

TO: Host Site Facilitators

Welcome to the 2013-2014 North Central Region 4-H Volunteer e-Forum! Thank you for choosing to host this event on behalf of 4-H Volunteers and Extension Staff in your area. We appreciate your time and efforts with helping us make this training opportunity a successful one for all of the participants!

The 2013-2014 e-Forum will take place on four separate evenings: **Monday, November 18, 2013; Tuesday, December 3, 2013; Tuesday, January 14, 2014; and Monday, February 3, 2014.** The live broadcast for each session will begin at **8:00 p.m. ET** (7:00 p.m. CT and 6:00 p.m. MT), and is scheduled to last for 90 minutes. We recommend that you begin the session 30 minutes earlier to allow for some introductions and on-site activities.

This Facilitator's Guide is designed to help you effectively prepare for the Webinar which will be delivered through Adobe Connect and then to facilitate some local discussion and activities throughout the session. Based on results from previous e-Forum sessions, interaction among the participants at your site will be a very valuable part of the e-Forum. Please familiarize yourself with the information in this Guide prior to the session and prepare any needed supplies to distribute to your participants.

Here are some helpful tips as you prepare to host this program:

- To **register your site for the e-Forum session**, please visit: <http://www.uwex.edu/ces/4h/ncrvd/eForum2013.cfm>. Click on the link for the session you wish to host and then click the "Register Online" button from the Michigan State University page. You will receive a confirmation once your site is registered. Note that you'll receive an invoice with a \$0 balance...there is no charge to register your site for the e-Forum sessions.
- At least **24-48 hours before the session**, test the settings/ software on the computer you will use for the sessions. Make sure that you are able to access the presentation. To test your computer's settings, visit https://connect.msu.edu/common/help/en/support/meeting_test.htm.
- If you have any **technical difficulties** with downloading or installing the Adobe Connect plug-in, please call the Michigan State University library help desk at **1-800-500-1554** and let them know.
- **10-15 minutes before the session** is scheduled to begin, connect to the online presentation room at: <https://connect.msu.edu/cyi>.
- If you have any **technical difficulties** with viewing the presentation during the session, contact technical support at **1-800-500-1554**.
- **Additional resources** that will be referenced during the session are available for volunteers

to download following the session at the North Central Region Volunteer e-Forum 2013-14 Web site: <http://www.uwex.edu/ces/4h/ncrvd/eForum2013.cfm>. This site will also have a link to a recording of the session. Additionally, the recordings will be housed long term at learn.extension.org.

Thank you for your interest and participation!

Sincerely,

North Central Region 4-H Volunteer Specialists

General e-Forum Overview

Purpose of e-Forum

The North Central Region 4-H Volunteer e-Forum enables 4-H Volunteers to learn from and interact with experts and peers across the 12-state North Central Region and beyond! Volunteers will then utilize lessons learned from the e-Forum with 4-H members throughout the 4-H program year.

The e-Forum format will utilize technology to reach volunteers who may be unable to attend face-to-face training sessions. Opportunities will be included in the e-Forum sessions for volunteers to interact with one another during facilitated on-site instruction and via online chat with volunteer audiences across the region.

Target Audience

The target audience for the North Central Region 4-H Volunteer e-Forum includes approved 4-H volunteers who work with youth primarily in club or project-based 4-H Youth Development Programs. Participants may include any and all levels of service tenure with the 4-H program. A secondary audience includes the 4-H Extension staff members who work with the volunteers to implement a successful 4-H program for the members. There are no prerequisites for this program.

Overall e-Forum Objectives

At the conclusion of the North Central Region 4-H Volunteer e-Forum series, each participant will be able to:

1. Identify at least one way to use techniques obtained from the e-Forum sessions in support of their service to the 4-H program.
2. Develop strategies to effectively utilize 4-H parents as a part of their 4-H programming efforts.
3. Discover proven methods to effectively engage teens and older youth in 4-H programs.
4. Explore technologies that will support better communication with 4-H members and enhance learning outcomes in 4-H projects.
5. Discover methods to reinforce simple science concepts using traditional 4-H projects.

e-Forum Format and Structure

The North Central Region 4-H Volunteer e-Forum will be taught in four sessions of 90 minutes each, from 8:00-9:30 p.m. Eastern (7:00-8:30 Central, 6:00-7:30 Mountain). We encourage host sites to invite volunteers to arrive 30 minutes ahead of the scheduled program so that host site facilitators can lead introductory activities or icebreakers prior to the start of the live program. The sessions are scheduled as follows:

Session 1: Monday, November 18, 2013 – You’ve Got 4-H Parents! Now What??

- Presented by: Pat McGlaughlin, University of Illinois; Steve McKinley, Purdue University; Sheri Seibold, University of Illinois; Mary Jo Williams, University of Missouri
- Parents play a critical role in deciding the organizations in which their children will participate. The experience the family has in 4-H during their first year is important for long-term participation. This session will help volunteers explore a variety of strategies to increase positive parental support of local 4-H programs. As a result, parents will stay connected with their own children, recognize mutual expectations and responsibilities between parents and volunteers, and become caring adults for other youth.

Session 2: Tuesday, December 3, 2013 – Engaging Teens/Older 4-H Youth

- Presented by: Becky Harrington, University of Minnesota; Kandi O’Neill, University of Wisconsin; Brenda Shafer, University of Minnesota; Rachelle Vetter, North Dakota State University
- Research has clearly shown that quality youth programs, those proven most effective and rated highly by young people themselves, are masterful at engaging youth at the highest level in planning, making choices, and reflecting on their learning. Attention to making youth programs fun, interesting, welcoming and encouraging to young people in our 4-H Youth Development programs is important but not enough. This session, co-developed and delivered by youth, will provide insight, tools and resources volunteers can use to more effectively engage and meet the needs of teen members, a common challenge in youth programs.

Session 3: Tuesday, January 14, 2014 – Using Technology to Enhance Your 4-H Experience

- Presented by: Rod Buchele, Kansas State University; Molly Frendo, Michigan State University; Mark Light, The Ohio State University; Kari Robideau, University of Minnesota
- Technology can be a great tool to support better communication and learning with 4-H participants. However, keeping up with the latest trends and changes can be challenging and overwhelming. This session will share some easy ways that technology can help 4-H leaders be better connected with youth participants. It will also briefly explore ideas on integrating technology into 4-H projects to enhance the life skill development and 21st century skills of young people.

Session 4: Monday, February 3, 2014 – Exploring the Science of 4-H Projects

- Presented by: Cathy Johnston, University of Nebraska; Bonnie Malone, The Ohio State University; Dixie Sandborn, Michigan State University; Vicki Schwartz, The Ohio State University
- Does the idea of emphasizing science in 4-H make you sweat? It doesn’t have to be scary.

Discover methods to reinforce simple science concepts using traditional 4-H projects. You will take home ready-to-go activities that incorporate science concepts across the curriculum areas.

Each session will be delivered to host sites online via Adobe Connect, originated and hosted by Michigan State University Extension. 4-H Volunteers will be invited to attend the live sessions at a host site sponsored by a local 4-H program. 4-H Extension Professionals will serve as host site facilitators and lead local discussions and activities with the 4-H Volunteers. Instructions to connect to the Adobe Connect program are included on p. 2 of this Guide.

Relevant resources will be provided to the 4-H Volunteers at each host site for each session.

Additional supplemental resources for e-Forum participants to access will be posted on the North Central Region Volunteer e-Forum 2013-2014 Web site:

<http://www.uwex.edu/ces/4h/ncrvd/eForum2013.cfm>.

A paper evaluation done on-site will allow participants to comment on the quality and content of each of the e-Forum sessions, provide input on future volunteer training opportunities, and better capture all participants' feedback immediately following each session. By using a paper evaluation done on site, we will ensure a greater response rate for the survey. The paper evaluation form will be made available for facilitators to download on the North Central Region Volunteer e-Forum website: <http://www.uwex.edu/ces/4h/ncrvd/eForum2013.cfm>. Please plan to print enough copies of the form for each participant.

Three additional questions will be asked in chat boxes near the end of the session to provide additional feedback from participants. You or the participants may type their responses into the respective chat boxes during the time allowed for the evaluations to be completed.

Facilitators should compile total numbers for all of the paper evaluation forms and enter them into the Survey Monkey link at <https://www.surveymonkey.com/s/793H7BX> after each session. Please input your site's data within two weeks of the session.

Welcome to Session 3 of the North Central Region Volunteer e-Forum!

The title of this e-Forum session is *"Exploring the Science of 4-H Projects"* and includes the following presenters:

- Cathy Johnston, University of Nebraska-Lincoln
- Bonnie Malone, The Ohio State University
- Dixie Sanborn, Michigan State University
- Vickie Schwartz, The Ohio State University

Session Description:

Does the idea of emphasizing science in 4-H make you sweat? It doesn't have to be scary. Discover methods to reinforce simple science concepts using traditional 4-H projects. You will take home ready-to-go activities that incorporate science concepts across the curriculum areas.

Supply List

The following supplies will be needed at your host site for this session

Host Site Facilitators: remember to test your equipment and connections prior to the Session according to the instructions provided on p. 2.

General Supplies

- LCD Projector
- Laptop/Personal Computer (that is no more than 2-3 years old)
- Speakers for audio
- Internet connection (wired, high-speed network connection preferred)
- Extension cord/power strip
- Separate laptop with Internet connection for participants to complete the online survey at the end of the program (optional)
- Registration sheet to record attendance
- Name tag for each person
- Writing utensils (pencils or pens)
- Refreshments (optional)

Supplies for session activities:

- Horticulture Activity:
 - Flowers
 - Tweezers (optional)
 - Razor blade (or small knife, scissors for younger children)
 - Hand lens or microscope
 - Paper /pencils
 - Diagram of flower structure handout - page 3

Leaders can use the two following web sites for background information, diagrams of flower parts and different types of flowers (right click on hyperlink)

<http://www.ext.colostate.edu/mg/gardennotes/135.html> Really good background for leaders

<http://leavingbio.net/thestructureandfunctionsofflowers%5B1%5D.htm> Very detailed for older participants

- Animal Science Activity:
 - Interpreting a Feed Label Handout
 - Copies of feed labels from Handout
 - Pens/Pencils

Supplies for Evaluation

- Copy of evaluation for each person

Host site facilitators: the following activity is designed to be led PRIOR TO THE START OF THE e-FORUM.

On-site welcome activity –

15 minutes (plan to conclude this activity by 7:55 p.m.)

Have participants stand as you read the following statements. Have them rank their comfort level with the statement along a continuum line. With the left end being very comfortable and the right end of the line being very uncomfortable.

1. Science was my favorite subject when I was in school.
2. I feel comfortable teaching science to 4-H'ers.
3. I know that I can teach science in 4-H projects even though I don't know much about the subject.
4. I am comfortable having the youth know more about the subject than me.
5. I will not teach science someone else can do that.
6. I am already incorporating science in my clubs 4-H projects.

Host site facilitators: a few minutes before 8:00 p.m. (ET), please help the group to find their seats and get ready for the start of the e-Forum.

Welcome to the 2013-2014 North Central Region 4-H Volunteer e-Forum (Slide 1)

Exploring the Science of 4-H Projects (Slide 2)

Hello and welcome to the 4th session of this 2013/2014 North Central E-Forum

We are glad to have you joining us tonight, and our hope is that each of you take away a new idea or technique that will help you help your 4-H club members learn the science of their 4-H projects. But first. . .

Congratulations to Salute to Excellence Award Winners (Slides 3-4)

Volunteer of the Year – National and Regional Winner

- Lisa Pfannensteil-Garrison, Kansas
- Club leaders usually try to manage or run a 4-H club program. Lisa saw from the beginning the strength in empowering youth to run their own program. She is a wonderful mentor who inspires children to find their own strengths. Lisa embodies many names: she is mother, wife, humanitarian, 4-H mom, co-leader, mentor, partner, community volunteer, manager, and most importantly, friend.
 - Outstanding Lifetime Volunteer – National and Regional Winner
- Mildred Waldren, Kansas
- Ask any 4-H member in Greeley County to describe 4-H in one word, it would be

"Mildred". She has given 4-H members the opportunity to master a new craft, solve ANY sewing problem, meet any parliamentary procedure challenge and learn to make wise decisions and choices for more than 60 years. Her knowledge (HEAD), her compassion (HEART), and her willingness to serve (HANDS) have helped make a stronger (HEALTH) 4-H program and she continues to Make the BEST even BETTER!

Science via Inquiry Learning - Do-Reflect- Apply (Slide 5)

- STEM is now the buzzword in education. Science, Technology, Engineering, and Math Research: positive experiences with science as youth increases likelihood pursuing education and careers in math, science, and engineering.

1. Do or experience it or Explore
2. Reflect...what we saw, what happened, any idea why it happened. The facilitator asks questions.
3. Apply...if you change the situation a bit, what might happen based on what you've just seen and learned. Transfer of information is applied knowledge.

TONIGHT we want to take a look at

Hands on learning

Experiential learning

Science inquiry

Tonight's e-Forum Program (Slide 6)

Presenters

- Cathy Johnston, University of Nebraska-Lincoln
- Bonnie Malone, The Ohio State University
- Dixie Sandborn, Michigan State University
- Vickie Schwartz, The Ohio State University

Recap of ice breaker activity (Slide 7 - 9)

Poll Question Site host respond for group

Session Objectives (Slide 10)

The objectives that we will discuss tonight include:

- Learning what is STEM?
- Understanding why we teach STEAM?
- Experience 2 STEM learning activities using Inquiry Based Learning
- Share Ideas

How do you like to learn? (Slide11)

Poll Question:

What is your preferred style of Learning?

- A. Auditory
- B. Visual
- C. Tactile/Hands on

Facilitators: Depending on the size of your group, you may want to break them up into small groups. Then make sure they report their findings in the appropriate chat pod.

You Tube: Animal Color Preference (Slide 12)

Inquiry based learning maybe new to many of you. In this You Tube video you will see an inquiry base experiment demonstrated in a fun and enlightening way. What were the results? Did the goats have a color preference? What do you think the youth learned by this activity? What did you learn by watching this video?

About this Session (Slide 13)

Nationwide, STEM education has been identified as a weak spot in American Education. School systems are doing what they can to overcome, but 4-H is in a perfect position to feature its hands on learning. Within our state 4-H program, all of the states in the North Central Region are putting emphasis on STEM projects, developing new projects, learning activities, and expanding learning opportunities in 4-H for STEM. Each of our state universities have a new focus on Science or STEM education. Nationally, 4-H has identified three primary mission Mandates. And one of them is Science. The other two are Healthy Living and Citizenship

Poll Question (Slide 14)

Respond to the poll question. Who should be teaching science: A. Schools B. 4-H C. Other youth organizations D. All of the above.

Inquiry Based Learning: (Slide 15)

You have a hand out with this image on it. An old adage states: "Tell me and I forget, show me and I remember, involve me and I understand." The last part of this statement is the essence of inquiry-based learning. Inquiry implies involvement that leads to understanding. Furthermore, involvement in learning implies possessing skills and attitudes that permit you to seek resolutions to questions and issues while you construct new knowledge.

"Inquiry" is defined as "a seeking for truth, information, or knowledge -- seeking information by questioning." Individuals carry on the process of inquiry from the time they are born until they die. This is true even though they might not reflect upon the process. Infants begin to make sense of the world by inquiring. The process of inquiring begins with gathering information and data through applying the human senses -- seeing, hearing, touching, tasting, and smelling. our traditional educational system has worked in a way that discourages the natural process of inquiry. Students become less prone to ask questions as they move through the grade levels. In traditional schools, students learn not to ask too many questions, instead to listen and repeat the expected answers.

Some of the discouragement of our natural inquiry process may come from a lack of understanding about the deeper nature of inquiry-based learning. There is even a tendency to view it as "fluff" learning. Effective inquiry is more than just asking questions. A complex process is involved when individuals attempt to convert information and data into useful knowledge. Useful application of inquiry learning involves several factors: a context for questions, a framework for questions, a focus for questions, and different levels of questions. Well-designed inquiry learning produces knowledge formation that can be widely applied.

Inquiry is not so much seeking the right answer -- because often there is none -- but rather

seeking appropriate resolutions to questions and issues. For educators, inquiry implies emphasis on the development of inquiry skills and the nurturing of inquiring attitudes or habits of mind that will enable individuals to continue the quest for knowledge throughout life.

Inquiry based learning like experiential learning has a circular process. It starts with a spark of interest. The learner then develops questions and creates a plan to answer the questions. They conduct an investigation or experiment to get to a possible answer and then take time to reflect and process what they have already done. More questions will arise from the activity which may spark a new interest. The teacher, leader do not need to know the answers to do this process but be willing to learn with the youth and guide the process.

Asking questions is an effective strategy to increase learning when they are used purposeful. The role of the frontline staff is critical in encouraging youth to question and make predictions, two very important science and engineering skills. Questions are one of many tools that can help youth think more deeply about what they are observing and to explain their thinking. The best part of inquiry based learning is that you as the teacher or leader do not need to be the expert and have all of the answers you can explore with the youth as you develop answers to your questions. Your role is facilitate the questions and learning activities.

Hands on - Horticulture (Slide 16)

Go to the website and print off the Flower Dissection Worksheet. Gather enough supplies for a couple of groups. Ask participants to dissect the flowers provide. Identify the parts of the flowers. Ask the inquiry questions from the worksheet.

How do they see using an activity like this with club members?
How did they feel about this activity?

Report back responses in the chat box.

Flower Dissection & Break (Slide 17)

We will resume in 10 minutes

Welcome Back? (Slide 18)

What did you discover?

Hands on – Animal Science (Slide 19)

- Go to the website and print off Lesson Three: Understanding Feed Labels for your information.
- Split the participants into three groups.
- Provide each group with copies of the feed labels handout and a worksheet.
- Have each group fill in the blanks on their portion of the worksheet.
- Discuss worksheet answers using the answer key and ask some of the leading questions from the bottom of the answer key.
- Report back your results in the chat box. Report your reactions to the activity in the chat box.

Take time to consider the labels (Slide 20)

Reflection Activity (Slide 21)

15 minutes -- Using the Subject matter assigned to your state, quickly design an activity that you could use to teach science concepts to club members.

Determine an age group
Define the problem
Explain the activity
Tell how this activity teaches a science concept
Why is it important for the 4-Her to understand this concept?
Report back to the larger group.

Next Steps (Slide 22)

Tonight we have talked about the importance of youth learning science and ways you can incorporate science into 4-H project work and test teaching methods to do this. Before you sign off tonight, whether you are meeting with a group or have been listening alone, please take a few minutes to enter one action step in chat box. At your site discuss your response to the following question:

- From these strategies, what action steps are you going to take locally to include science in 4-H projects? Enter your ideas in the chat box.

Click 2 Science Resource (Slide 23)

E-Forum Evaluation (Slide 24)

We have left a few minutes at the end of this evening's program for you to provide us with your feedback from the e-Forum session. Your Host Site Facilitator has a paper copy of a survey for you to give us some input. You'll complete this before you leave and your facilitator will then compile the results and share them with us electronically.

<https://www.surveymonkey.com/s/793H7BX>

We also have three open-ended questions that will appear on your screen in separate chat boxes. Please type your responses to these questions into the chat box.

Three evaluation questions that will appear on the screen in separate chat boxes are:

1. One way that I will use what I learned in this session is...
2. The most important lesson I learned from this session was...
3. A 4-H-related topic I would like to learn more about in the future is...

Host Site Facilitators: please take a poll of your room and respond to the questions with a summary of what was shared in your room.

Host Site Facilitators: please compile total numbers for all of the paper evaluation forms and enter them into the Survey Monkey link at <https://www.surveymonkey.com/s/793H7BX> after each session. Please input your site's data within two weeks of the session.

E-Forum Resources (Slide 25)

Resources that we shared tonight are available at this Web site. A recording of this site will also be posted at this site and at learn.extension.org. If you missed last month, you can also access the recording at this site. (learn.extension.org).

Host Site Facilitators: please encourage participants to visit this Web site to obtain additional information.

2013-2014 North Central 4-H Volunteer E-Forum Sessions (Slide 26)

This is the last in this years of E-Forum series. Thank you for participating in this series. We will be planning more soon. If you have great programming ideas please let your county staff know

Thank you for joining us this evening!!!

***Thank you, Host Site Facilitators, for your assistance with
this session of the 2013-2014 NCRVe-Forum!!***