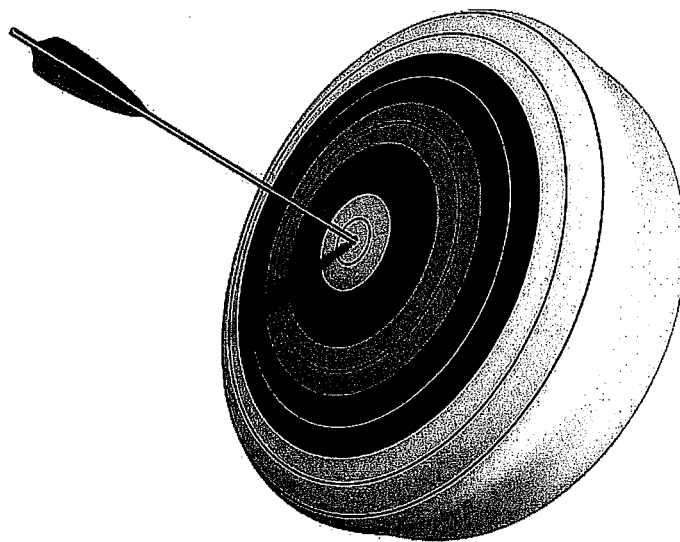
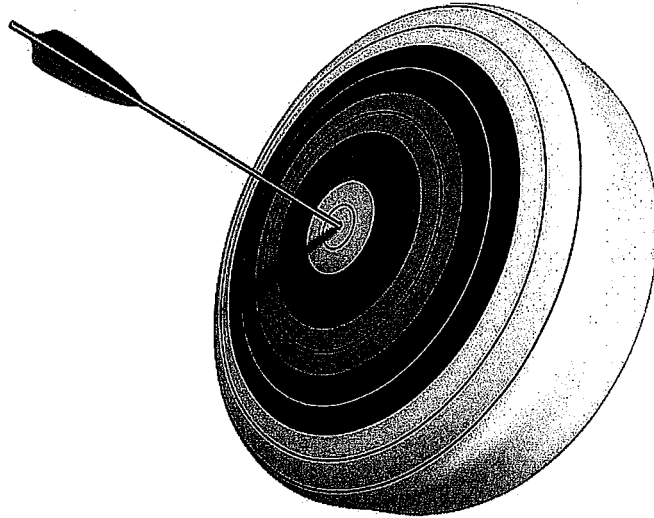


UC  
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# Archery

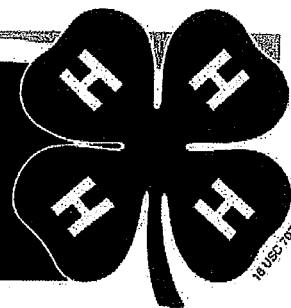


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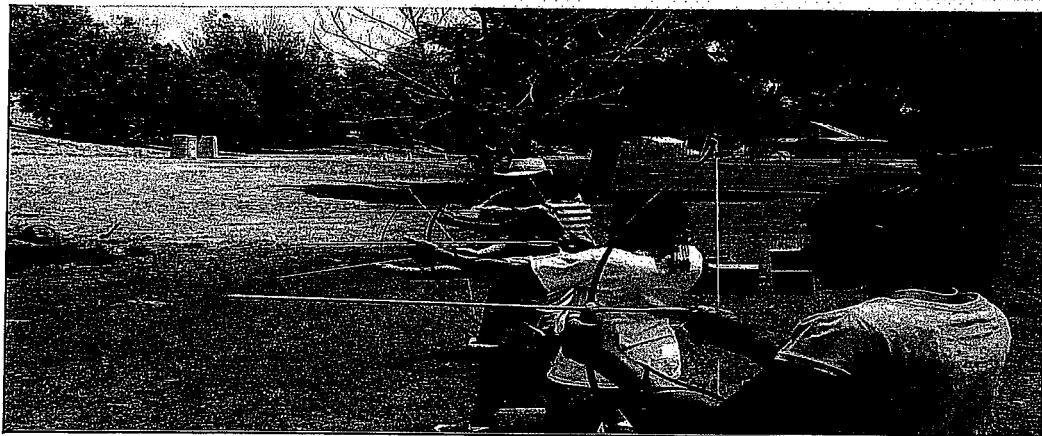


***This We Believe:***

- The boy and girl are more important than the projects.
- The member should be their own best product.
- No award is worth sacrificing the reputation of a member or leader.
- Competition is a natural human trait and should be recognized as such. It should be given no more emphasis than other fundamentals.
- Learning how to do the project is more important than the project itself.
- Many things are caught rather than taught.
- A blue ribbon member with a red ribbon project is more desirable than a red ribbon member with a blue ribbon project.
- To learn by doing is fundamental in any sound educational program.
- Generally speaking, there is more than one good way of doing most things.
- Every member needs to be noticed, to feel important, to win, and to be praised.
- Our job is to teach members *how* to think, not what to think.



# 4-H ARCHERY SHOOTING SPORTS PROJECT



The 4-H Shooting Sports Program enables youth to become responsible, self-directed and productive members of society. The program transfers knowledge, skills and attitudes to develop human capital, using the subject matter and resources of the land-grant universities. The specific goals and objectives of the 4-H Shooting Sports Program include:

- Promoting the highest standard of safety, sportsmanship, and ethical behavior.
- Strengthening families through participation in life-long recreational activities.
- Teaching safe and responsible use of archery equipment as well as sound decision making, self discipline, and concentration.

## 4-H THRIVE

### Help Youth:

#### Light Their Spark

A spark is something youth are passionate about; it really fires them up and gives them joy and energy. Help youth find what it is about archery that excites them.

#### Flex Their Brain

The brain grows stronger when we try new things and master new skills. Encourage youth effort and persistence to help them reach higher levels of success.

#### Reach Their Goals

Help youth use the GPS system to achieve their goals.

**Goal Selection:** Choose one meaningful, realistic and demanding goal.

**Pursue Strategies:** Create a step-by-step plan to make daily choices that support your goal.

**Shift Gears:** Change strategies if you're having difficulties reaching your goal. Seek help from others. What are youth going to do when things get in their way?

#### Reflect

Ask project members how they can use their passion for this project to be more confident, competent and caring. Discuss ways they can use their skills to make a contribution in the community, improve their character or establish connections.

### Starting Out *Beginner*

### Learning More *Intermediate*

### Exploring Depth *Advanced*

- Know and understand safety rules when on the range.
- Learn about range lines and safety areas.
- Identify the parts of a bow and arrow.
- Demonstrate the steps of shooting.
- Learn the proper range commands using whistle or voice.
- Shoot arrows and record your scores.

- Learn how to bare shaft or paper tune your bow, make adjustments and show results to your leader.
- Explain how to adjust a pin sight.
- Use a bow square to check your bow, arrow rest and nock for correctness.
- Give a demonstration, talk or poster presentation on some aspect of archery.
- Organize an archery range set-up.

- Interview someone whose profession involves or is related to the shooting sports and report on an industry related career opportunity that interests you.
- Contact a local, state or national association related to archery. Explain to your project group what this association has to offer to its members and other interested individuals.

The activities above are ideas to inspire further project development. This is not a complete list.

*Light Your Spark*

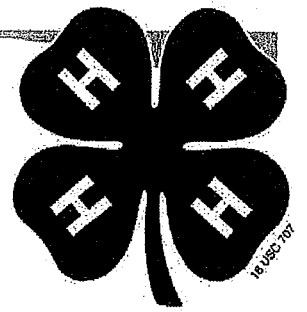
*Flex Your Brain*

*Reach Your Goals*

*Light Your Spark*

*Flex Your Brain*

*Reach Your Goals*



# Expand Your Experiences!

## Science, Engineering, and Technology

- Experiment with distances and trajectories in arrow flight and report on the results.
- Build your own arrows using the basic components of shafts, nocks, and fletching's.
- Create a film about your project and share with others.

## Healthy Living

- Learn about eye dominance and why it is important in archery shooting.
- Identify how keeping fit improves your physical stance and muscle development for drawing and shooting a bow.
- Name the safety equipment used in shooting a bow and explain why it is important.

## Citizenship

- Plan and implement a community service activity related to your project.
- Participate in an event where you promote 4-H and shooting sports to the public.
- Visit your local county board of supervisor meeting and report on the activities of your 4-H club or project.

## Leadership

- Become a role model for others by taking the position of junior/teen leader.
- Mentor younger members in setting shooting specific goals and developing a plan on how to achieve them.
- Be responsible for teaching materials used at project meeting.

## Resources

- National 4-H Shooting Sports [www.4-hshootingsports.org/](http://www.4-hshootingsports.org/)
- California 4-H Shooting Sports [www.ca4h.org/Projects/SET/ShootingSports/](http://www.ca4h.org/Projects/SET/ShootingSports/)

### Connections & Events

### Curriculum

### 4-H Record Book

**Presentation Days** – Share what you've learned with others through a shooting sports presentation.

**Field Days** – During these events, 4-H members may participate in a variety of contests related to their project area.

Contact your local county Extension Office to determine additional opportunities available, such as a county match or resource fair.

○ 4-H Shooting Sports Guide - Basic Archery (*Issued to project leaders certified to instruct the project*)

○ 4-H Shooting Sports Education Project - Member Manual 4-HI 950  
<http://www.4-hshootingsports.org/4-HI950.pdf>

○ National Field Archery Association - Downloadable information regarding archery competition  
[www.nfaa.org/4-hinfo/](http://www.nfaa.org/4-hinfo/)

4-H Record Books give members an opportunity to record events and reflect on their experiences. For each project, members document their personal experiences, learning and development.

4-H Record Books also teach members record management skills and encourage them to set goals and develop a plan to meet those goals.

To access the 4-H Record Book online, visit [www.ca4h.org/4hinfo/](http://www.ca4h.org/4hinfo/)

The UC 4-H Youth Development Program does not endorse, warrant, or otherwise take responsibility for the contents of unofficial sites.



University of California Agriculture and Natural Resources

Light Your Spark

Flex Your Brain

Reach Your Goals

Light Your Spark

Flex Your Brain

Reach Your Goals

# ARCHERY

## Sonoma County 4-H

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Guidelines for Project Proficiency Award

#### Beginning

	<u>Date</u> <u>Completed</u>	<u>Leader's</u> <u>Initials</u>
1. What is your draw length and pull weight? Explain how these two items are measured.	_____	_____
2. Name three types of archery bows.	_____	_____
3. Explain what a peep sight is and how to use one.	_____	_____
4. Demonstrate and explain what an anchor point is.	_____	_____
5. Explain how to adjust your sights.	_____	_____
6. Name two types of bowstring release methods.	_____	_____
7. What does the term "full draw" mean?	_____	_____
8. What are fletchings and a cock vane?	_____	_____
9. What is a bow sling used for?	_____	_____
10. What is a stabilizer used for?	_____	_____
11. Name two types of archery shooting.	_____	_____
12. Point out the parts of a compound bow:	_____	_____
A. Arrow rest		
B. Cable		
C. Nock		
D. Sight		

#### Activities

1. Give a demonstration related to archery.	_____	_____
2. Display a still exhibit related to archery.	_____	_____
3. Watch an archery competition league shoot.	_____	_____
4. Participate in an archery competition league shoot.	_____	_____

Project Leader's Signature of Completion: \_\_\_\_\_

Date: \_\_\_\_\_

Club Leader's Signature of Completion: \_\_\_\_\_

Date: \_\_\_\_\_

# Glossary of Archery Terms

**AIM:** Any method used to point the arrow in the direction you want it to go.

**ANCHOR:** Consistent placement of the drawing hand to a position on the face, mouth or jaw.

**ARM GUARD:** A piece of stiff material, usually leather, used to protect the bow arm from the slap of the bowstring upon release. It is worn on the inside of the forearm of the bow arm.

**ARROW REST:** The horizontal projection on the bow upon which the arrow lies.

**BACK:** The side of the bow away from the bow string.

**BAREBOW:** A style of shooting - without a bow sight.

**BLUNT TIP:** An arrow point usually made of rubber and used in some archery activities.

**BOW:** A device made of a piece of flexible material with a string connecting the two ends, used to propel an arrow.

**BOW SIGHT:** A mechanical device placed on the bow which the archer uses for aiming at the target.

**BOW SQUARE:** A "T" shaped device used to measure brace height and for placing nock locators.

**BOW STRINGER:** A device used to string a bow safely

**BRACE HEIGHT:** The distance from the pivot point to the string when a bow is strung. (Also called string height and once called the fistmele)

**BROADHEAD:** A sharp, razor bladed arrow point used for hunting.

**BUTT:** Any backstop to which a target face is attached.

**CANT:** To tilt the bow left or right while at full draw.

**CAST:** The ability of a bow to propel an arrow a given distance.

# Glossary of Archery Terms

**CENTER SERVING:** The material in the center of the bow string where the arrow is nocked. Protects the string from wear.

**COMPOSITE BOW:** A bow made of several materials.

**COMPOUND BOW:** A hand-held, hand-drawn bow that uses a pair of cables and wheels to store more energy.

**CREST:** The colored bands around the shaft of the arrow which aid in its identification.

**DRAW:** To pull the bow string back. Also, the distance the bow string is pulled back.

**DRAW WEIGHT:** The weight, measured in pounds, used to bring the bow to full draw. Also the weight on a bow, using 28 inches to front of bow as the standard draw length.

**END:** A set number of arrows that are shot before going to the target to score and retrieve them.

**FINGER TAB:** A flat piece of smooth material which protects the fingers of the drawing hand.

**FINGER SLING:** A small strap that attaches to the thumb and index finger of the bow hand.

**FLETCHING - FLETCH:** The feathers, plastic vanes or other devices attached to the arrow shaft which stabilize the flight of the arrow.

**FLU-FLU:** An arrow with large untrimmed feathers which restrict the distance it will travel; used for shooting aerial targets

**FOLLOWTHROUGH:** Maintaining the motion of the upper body muscles after releasing the string.

**FULL DRAW:** The position of the archer when the bowstring has been drawn to the anchor point.

# Glossary of Archery Terms

**GROUP:** To shoot arrows in a pattern. Or the pattern of the arrows in the target.

**LAMINATED BOW:** A bow made of several layers of material glued together, usually two layers of fiberglass and a hardwood core.

**LET DOWN:** Returning from full draw to the undrawn position with control and not releasing the string.

**LIMB:** Upper or lower part of the bow that bends when the string is drawn back. The part of the bow where the energy is stored.

**NOCK:** To place the arrow on the string. Also the attachment to the rear end of an arrow which is placed on the bow string and holds the arrow on the string.

**NOCK LOCATOR:** The mark or device that indicates where the arrow is to be placed on the string.

**RECURVE BOW:** A bow with limbs that bend away from the archer when the bow is held in the shooting position.

**SERVING:** The wrapping of material around the loops and center of the bow string to protect it from wear.

**SPINE:** The stiffness or amount an arrow bends, determined by hanging a 2# weight from the center of the arrow and measuring the bend.

**STABILIZER:** A rod attached to the handle riser. Usually has a weight on the end of the rod. Absorbs the vibrations of the bow when the string is released.

**TOXOPHILITE:** A lover of the bow; an archer.

**TUNE:** To adjust the variables in the bow and arrow system to achieve that best arrow flight and arrow groups.

**VANE:** Any fletching made of a material other than feathers, usually plastics.

**WINDAGE:** The left-right adjustment of the bow sight.



# THE TEN COMMANDMENTS OF ARCHERY SAFETY

1. I will always treat my bow and arrows as a firearm and not point it at anything that I do not intend to kill.
2. I will not nock an arrow or draw a bow when a person is in front of me.
3. I will never release an arrow where I cannot see the entire flight of the arrow.
4. I will not shoot an arrow straight up.
5. I will not release a drawn bow without an arrow.
6. I will not shoot an arrow that is too short for my draw or one that is damaged or too weak for my bow.
7. I will not shoot toward houses, highways, livestock or where there are people.
8. I will not go forward to retrieve my arrows until all are through shooting.
9. When looking for an arrow beyond the target, I will set an arrow in the top of the target to warn others that I am behind the target.
10. I will always be courteous to others, conserve wildlife, and preserve the natural beauty of my country.

# ARCHERY

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Guidelines for Project Proficiency Award

### Intermediate

	<u>Date</u> <u>Completed</u>	<u>Leader's</u> <u>Initials</u>
1. Show your knowledge of different shooting styles.	_____	_____
2. Demonstrate proper shooting stances.	_____	_____
3. Explain target scoring.	_____	_____
4. Demonstrate knowledge of different targets, their purpose and application.	_____	_____
5. Show your knowledge of range set up.	_____	_____
6. Show your knowledge of range safety.	_____	_____
7. Build arrows from components (may include crestring).	_____	_____
8. Make a tab.	_____	_____
9. Demonstrate equipment safety.	_____	_____
10. Enter a project into local fairs.	_____	_____
11. Give a demonstration about any procedure at the club level.	_____	_____
12. Officiate at an archery competition.	_____	_____
13. Complete a semi-finished bow.	_____	_____
14. Give a presentation at Presentation Day.	_____	_____

Project Leader's Signature of Completion: \_\_\_\_\_

Date: \_\_\_\_\_

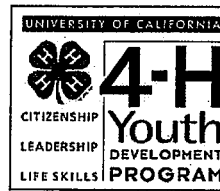
Club Leader's Signature of Completion: \_\_\_\_\_

Date: \_\_\_\_\_



# CLOVER SAFE

AGRICULTURE AND NATURAL RESOURCES  
ENVIRONMENTAL HEALTH AND SAFETY



#47

## ARCHERY SAFETY

*Clover Safe notes are intended primarily for 4-H volunteers and members nine years and older.*



*Photograph Courtesy of  
Tehama County 4-H Program*

Information available from the U.S. Consumer Products Safety Commission indicates approximately 3,200 people received hospital treatment for archery-related injuries during 2006. Most injuries involved lacerations and punctures to fingers and hands and contusions to forearms. Many of these injuries were due to archer inexperience, error, or inattention and could have been readily prevented.

### Archery Safety Precautions

- Before using, always inspect the bow and arrows for defects or disrepair, including wear, cracks, twisting, or other damage to the bow, bowstring, cables, pulleys, and arrow shafts, nocks, and fletches. Assure all screws are tightened and bow accessories are properly attached.
- If the archery equipment fails your inspection, inform your group leader, parent, or guardian and remove it from use until it has been repaired.
- Pay attention when stringing a bow to assure that the bowstring is properly fitted in both of the bow tips. Use a bow stringer to string long and recurve bows.
- A good safety practice is to use both an arm guard and a finger tab or archery glove to protect your forearm and fingers, respectively, from the bow string.
- Before drawing the bow, always thoroughly inspect the line of sight to the target and areas to either side of the target to assure these arrow-flight zones are clear of people, pets, or other non-intended targets.
- Never draw a bow and point the arrow at or in the direction of another person.
- Do not shoot an arrow into an area where its path cannot be followed or straight upwards into the air.
- Only draw the bow when pointing the arrow at a target.
- Never draw back a bowstring further than the length of the arrow being used.
- Do not release a bowstring unless it has a nocked arrow.
- Always follow all instructions of the Archery Range Leader while at an archery range.
- When at an archery range, do not retrieve your arrows until the "stop shooting" and "all clear" signals have been given. Likewise, do not move past the firing line to pick up a dropped arrow or other equipment until these signals have been given.
- Never pass in front of other archers while at an archery range. Stay behind the archery shooting line.
- Stand to one side of the target when pulling out arrows.
- If you must search for arrows behind the target, let other archers know where you are by placing your bow in front of the target or having another archer stand in front of the target.
- Always carry arrows with the points facing down and do not run while carrying arrows.
- If you are injured while practicing archery, notify your project leader, parent, or guardian. Seek medical attention if the injury is serious.

# **I'm a 4-H Project Leader: Now What Do I Do?**

## **How do I know who is in my project?**

- Your club organizational leader will provide you with the names, addresses and phone numbers of the members enrolled in the project for which you are the leader.
- If you are working on the county level, contact the UCCE for the list of project members.
- The organizational leader may indicate to you if any of the youth have special needs. At your first project meeting, note any other youth that may have special needs.
- You may wish to consult with the parent or your 4-H Youth Development Agent as to how to work with a special needs child.

## **How often should I hold project meetings?**

It is recommended you hold 4-6 meetings that each last 1½ to 2 hours in length. Some projects require more meetings or a longer meeting time to accomplish your goals. Some projects, such as leathercraft, may lend themselves to individual project work as members progress on their projects. In this case, you should hold several introductory meetings for all members and then set up a schedule of time for them to sign up for individual help.

## **When do I start?**

Get started as soon as possible! Members' interest in a project is most keen when they are signing up for a project and when they get their project books.

## **How do I cover the cost of project meetings?**

- There is a wide variety of means for covering the cost of project meetings. Some methods used include:
- Each member pays for their share of the expenses or provides a portion of the supplies.
- The club agrees to cover expenses using funds from their treasury. Approval in advance is needed for this.
- Members and leaders can solicit donations/supplies from area businesses.
- Sometimes funds from sources outside your club may be available to cover your project meeting costs.

## **How do I establish a project meeting schedule?**

First, determine when you are available to work with project members. Then determine an initial project meeting date by consulting with your project members.

Publicize the date using one of the following means:

- County and/or club newsletter
- Club meeting or leader association meetings
- Postcards or phone calls to project members

You may not be able to schedule an initial meeting that everyone can attend. Establish a time to meet with those unable to attend before you hold your second project meeting.

### **Where do I hold project meetings?**

Typically project meetings are held at project leader homes, schools, or community buildings. For more information on facility adaptability and liability concerns contact your 4-H Youth Development Agent.

### **What safety precautions do we need to consider?**

Consider the type of safety issues your particular project involves. Request and secure necessary safety items such as ear protection, eye protection and head protection.

### **How do I let others in my club or other clubs know I am a project leader?**

Prior to enrollment ask for time on your club's meeting agenda to let families in your club know you're a project leader and to share some things the kids could do in the project if they enrolled in it. When the project materials are handed out, take the opportunity to inform or remind members that you are their project leader and set an initial meeting date with the group. If no one in your club is in your project, you may wish to offer your services to a neighboring club. Talk to your club organizational leader or county 4-H Youth Development agent about this opportunity.

### **How do I prepare for the first meeting?**

You may want to establish a 4-H resource box where you keep your project materials and any additional resources you will be using. Take time to become familiar with your project literature and talk to others who were project leaders for this project to find out what activities the members enjoyed.

### **What should I do at the initial project meeting?**

- At the initial project meeting, here are some ideas of what you might want to cover:
- Find out what the members want to learn and accomplish in the project. The project literature is an excellent source of ideas.
- Review the safety practices that members will need to follow.

- Do an introductory activity related to the project so the members get to know one another
- Have a small project the members can complete and take home
- Talk about how the project meeting supplies will be paid for. Experienced leaders have found it easiest to charge a small fee to cover the cost of the expenses.
- Assess when members are available for additional meetings. You may wish to ask the parents or members to bring along their calendars of family activities.
- Encourage parents to participate in project meetings, especially the initial meeting.

### **What does a typical project meeting look like after the initial orientation?**

Use the experiential learning model (found in the introductory pages of your Helper's Guide) to plan your project meeting. The project helper's guide will provide suggestions for designing a project meeting. Here are some suggestions for each section of the model:

#### **Do**

- Plan an activity to focus the project members on what they'll be doing today. Work on the project for that meeting.

#### **Reflect**

- Review the process completed
- Discuss what worked and didn't work.
- Talk about how any problems that arose were solved.
- Assist members in documenting their project work for inclusion in their record books/portfolios.

#### **Apply**

- Ask the project member the following questions:
- What else have you seen that is similar to this?
- How can you apply what you learned today to other situations?

### **What resources are available to help me?**

- 4-H Project Literature – You will receive project literature through your 4-H club or the UW-Extension office. Typically there is a helper's guide and member literature for three to four levels.
- Other People in my Club & County – There are a number of people in your county who would be willing to share project ideas and tips with you.

These include:

- Project leaders in other clubs
  - County Staff
  - Older youth who have been involved in the project
- 
- **Media Collection & Public Libraries** – Additional resources can be obtained from the Cooperative Extension Media Collection. They have videos, skillathons, displays and resource packages available to support a variety of projects. There is a user fee per item you or your club will be responsible for. You can view their catalog at their website <http://www.uwex.edu/ces/media/>. Check with your local public library to find out what resources they may have or that you can obtain through inter-library loan.
  - **4-H Website** – Wisconsin 4-H is continually adding more information and activities to their website. Visit this site at [www.uwex.edu/ces/4h/onlinepro/](http://www.uwex.edu/ces/4h/onlinepro/). You may wish to check out websites from other state 4-H programs also.
  - **Volunteer Leaders Conferences** – Review each issue of your county's newsletter to learn about training sessions for project leaders offered by your county, district or at statewide events. Sessions focusing on new project literature are typically offered at the State 4-H Volunteer Leader Conference held every other year. Periodically statewide conferences focusing on specific project areas are offered in addition to sessions at the volunteer conferences. You can also exchange ideas with other leaders at statewide Field Day.
  - **Field Trips** – Youth always enjoy the opportunity to see firsthand how things are done and how they work. Consider taking your project group on a field trip or tour of a local business or company to enhance their project experience. An example would be taking your dairy members to a cheese factory or your foods group to a local bakery.
  - **Local Experts** – Bring in a local "expert" to share their ideas and experiences with your group. One example would be asking a Master Gardener to share information on choosing perennial or trimming shrubs at one of your project meetings.
  - **Magazines** – Many leaders have found creative ideas to supplement those in the project literature in magazines they have or those at the public library.

### **How can I incorporate activities not included in the project guide?**

We encourage you to use the ideas in the project literature as they have been successfully used with youth. If you have some additional activities you would like to incorporate, consider the following criteria:

- Of interest to kids
- Developmentally appropriate
- Incorporate the experiential learning model
- Youth and adults are involved in determining what will be done
- Enhances the development of member life and project skills
- Research based source of content utilized

### **What is the relationship between project work and the county fair?**

The County Fair is an opportunity for an independent evaluation of life and project skills a member learned through completing a project. County fair entries typically match the activities included in the project literature and may include other activities that are being emphasized in your county. One of your roles is to help maintain the focus of members and parents on the goal of 4-H, which is to develop blue ribbon kids. Talk with members about what they learned about each of their fair entries from the judging process. Help members celebrate their accomplishments regardless of the color of ribbon each project member received at the fair. This may be done through individual encouragement or at a meeting following the fair. While entering and displaying a project at the County Fair is the traditional method of public affirmation, there may be other means of exhibition such as a club tour, open house, community celebrations or others.

### **Who can I go to if I need someone to help me during the project meetings?**

If you are leading beginning level project meetings, ask older members in the project to help you. This is a great leadership experience for them! Parents are another excellent source of help. Don't hesitate to ask them to stay for the meeting and be actively involved in their child's project work.