MISSION
Engaging youth as valued, contributing members of their communities in partnership with caring adults.

VISION
A world in which youth and adults learn, grow and work together for positive change.

4-H IS NOT YOUR ORDINARY "CLUB."
More than 55,000 members strong, Missouri 4-H is an active, dynamic organization of young people who are learning, growing and preparing to be the leaders of today and tomorrow — making a REAL difference in their community, country and world. 4-H gives you opportunities to gain leadership, citizenship and life skills through fun and innovative hands-on activities. 4-H is committed to serving youth of all abilities.

IT’S AN EXPERIENCE!
Build friendships at camps, conferences and events as well as club and project meetings. Showcase your work and creations at fairs and competitions. Dive into exciting activities that interest you, such as:

- Filmmaking
- Robotics
- Aerospace and rockets
- Photography
- Shooting sports
- Fashion and clothing
- Camping
- Technology and computers
- Conservation and recycling
- Horsemanship
- Livestock management
- Pet care
- Arts and crafts
- Nutrition and fitness
- Public speaking
- Citizenship and leadership
- Entrepreneurship
- Community service projects
...and so much MORE!

MORE ABOUT 4-H
How old do I have to be to join 4-H?
4-H welcomes all young people ages 5 to 18. For kids ages 5 to 7, there is a special 4-H program called Clover Kids.

Does it cost to join 4-H?
There is a small fee to join 4-H — check with your local University of Missouri Extension center for details. In addition, some projects might require a small investment to get started, and there might be charges for materials or special trips.

MAKE A REAL DIFFERENCE!
It’s easy. Call your local University of Missouri Extension center listed across from this page. A 4-H staff member will guide you to the 4-H opportunities in your area. Visit the Missouri 4-H website: http://4h.missouri.edu

facebook.com/missouri4h
@missouri4h

About the 4-H Clover
4-H Clover is a catalog of Missouri 4-H projects, programs and publications. It is designed to help volunteers, members and their families select projects and activities. It will also help in setting goals. In most cases, project levels need not be taken in sequence. However, you might want to consult with the project leader before skipping a level.

4-H Clover is published by University of Missouri Extension, an ADA/equal opportunity institution.

How to contact the 4-H Center for Youth Development
4-H Center for Youth Development, University of Missouri,
1110 S. College Ave., Columbia, MO 65211
573-882-9359 Fax 573-884-4225
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Dear family and friends,

Hello and welcome to Missouri 4-H! As the nation’s largest and premier youth development program, 4-H helps young people develop leadership, citizenship, and life skills through a variety of learning experiences and programs. As the youth development program of the University of Missouri, 4-H connects youth to age appropriate and hands-on learning opportunities in areas such as life sciences, agriculture, engineering, technology, and social sciences. 4-H opens up the world of science and more to kids!

4-H is also about relationships, and we have many examples from caring adult leaders who guide and support youth to kind and considerate young people who work together to make their communities better. 4-H is building a generation of capable, talented and confident youth leaders.

4-H has many opportunities for youth to meet friends, have fun and learn things they are interested about through clubs, schools, afterschool programs, projects and many events. So many choices! Volunteers are an important part of the program because they help create 4-H learning experiences for youth in communities across Missouri. Without them, Missouri 4-H wouldn’t have the reach it does today. They and parents are important components of the program. Parents and caring volunteers are essential in providing positive experiences that help young people be successful.

Together, dedicated 4-H staff and volunteers and lively 4-H’ers will continue to learn and grow to help youth and communities thrive. Be a part of 4-H and be a part of the fun!

Sincerely,

Alison Copeland
Interim Program Director
4-H Center for Youth Development

---

I PLEDGE MY...

**HEAD** to clearer thinking
Discover the world around you and find new ways to see and understand yourself. Build your knowledge, skills and attitude. Learn how to think and act as a team member while working with others to accomplish your goals.

**HEART** to greater loyalty
You will have the chance to talk with other 4-H members and leaders about what is important to you. You will share ideas, thoughts and emotions and form lasting friendships and memories.

**HANDS** to larger service
As a 4-H member, one of the benefits is gaining hands-on experience. In 4-H you’ll learn new skills and have the opportunity to explore careers that interest you. You’ll have fun improving your community while preparing for the future. Better yet, you’ll make lifetime friends while sharing your talents and ideas with others.

**HEALTH** to better living
Being healthy means feeling good inside and out, which is important to 4-H’ers. You will begin to develop a healthy lifestyle by learning which foods are good for you and exercises that can give your physical and emotional well-being a real lift.

...for my club, my community, my country and my world.
ENROLLING IN 4HONLINE

NEW FAMILIES ENROLLING IN MISSOURI 4-H

Your local University of Missouri Extension center and 4-H staff can help you find a club, discuss project selection and begin the enrollment process. To enroll in Missouri 4HOnline, you need a computer, Internet access, a valid email address and a web browser (like Google Chrome or Firefox). Go to http://mo.4honline.com (notice there is no “www” in that address).

1. Select “I need to set up a profile,” and set up your login information. Email addresses must be valid in order for you to have access to your information. This is your account login, as well as how you will receive information.

2. Next, complete the information for your family profile. All youth and adult members in your family will be managed under this family profile.

3. Add members to the family (adult or youth) by selecting from the “Add A New Family Member” drop-down menu and completing the profile for each member.

4. Complete the profile for each member, including contact and demographic information, authorizations, health form, club and project selection.

5. Submit your enrollment, and pay the required dues reflected on member invoices. **

RETURNING FAMILIES RE-ENROLLING IN MISSOURI 4-H

1. Log in to your family profile with your log-in email address. (If you can’t remember your password, select “I forgot my password.” If you cannot remember your log-in email, call your county office. Do not create a duplicate profile!) Continue to your Family Member list.

2. Select “Edit” next to the member you are re-enrolling.


4. Review all content in the member profile, update any health form changes and change any projects (if you aren’t enrolling in a project, delete it for this year).

5. Submit your enrollment, and pay required dues reflected on member invoices. **

**All state event registrations require a member to be in “Active” status in 4HOnline. Members will remain in “Pending” status until the county review of membership and state/county (if any) membership dues are processed. Adult volunteer applicants remain in “Pending” status until all steps of the volunteer process are completed.

If online access is not readily available to you or your family, contact your local Extension office for alternatives.
**LEADERSHIP FOR 4-H**
The 4-H faculty (4-H youth development specialist and/or 4-H youth program assistant) lead county program development and work with volunteers to coordinate the 4-H program. Most counties have a 4-H council or advisory group that provides direction for programs. Local 4-H faculty serve in ex-officio roles with the 4-H council, but are employees of University of Missouri Extension. The 4-H council is accountable to the county’s University of Missouri Extension council and is responsible for guiding, promoting and implementing the total 4-H youth development program in the county. The 4-H council should include representatives from 4-H clubs in the county, 4-H school enrichment programs, 4-H special interest groups and other youth development partners in the county.

**4-H IS OPEN TO ALL**
4-H is the youth development program of University of Missouri Extension, a partnership with Lincoln University, the U.S. Department of Agriculture and local governments. 4-H and University of Missouri Extension programs are open to all persons. The 4-H name and emblem (clover) are protected by law. Individuals, clubs and groups who wish to use the 4-H name or emblem must follow the usage policies established by the U.S. Congress and the U.S. Department of Agriculture. [https://nifa.usda.gov/4-h-name-and-emblem](https://nifa.usda.gov/4-h-name-and-emblem)

Youth with special needs
4-H is committed to serving all youth. Multiple resources are available to ensure that youth with special needs have meaningful and positive experiences in the 4-H setting. Please talk with the 4-H Youth Development staff member in your community to learn about these opportunities. In the meantime, watch our video at [https://www.youtube.com/watch?v=qX95KXZKrQk](https://www.youtube.com/watch?v=qX95KXZKrQk) and view resources at [http://4h.missouri.edu/resources-for-inclusion.aspx](http://4h.missouri.edu/resources-for-inclusion.aspx).

**WHERE TO JOIN 4-H**
You should participate in the 4-H program in the community where you live, whenever possible. If this is not possible, your local 4-H faculty will work with you to develop a plan for 4-H membership. A list of local University of Missouri Extension centers is on page 3 of this magazine.

4-H membership can be moved to another county or state any time of the year. Local policies for membership in good standing might affect eligibility for participation in county events. A member must choose one club or group for their primary participation and eligibility determination for county events. He or she may participate in multiple 4-H groups or programs. Ask your local 4-H faculty if you have questions.

**4-H MEMBERSHIP AND ENROLLMENT**
Age and requirements are listed within the explanation of each type of membership. Age requirements may be adapted to meet special needs of the young person or group. For example, accommodations will be made for persons with developmental or physical disabilities.

Minimum membership
There must be at least three members from two families for a project or special interest club, or five members from three different families for community clubs.

Enrollment times
Young people may enroll in county 4-H programs at any time during the program year. However, there may be some state or local deadlines for participation in certain activities or programs. These might include registration deadlines for camps or trips, award and scholarship application due dates, and due dates for participating in special opportunities such as fairs or contests. Consult your local 4-H youth faculty for current information. Youth member and volunteer enrollment in 4-H includes an online process at [http://mo.4honline.com](http://mo.4honline.com).
PARTICIPATION AND GUIDELINES

Clubs and projects

4-H Clover Kids
The 4-H Clover Kids program introduces 5- to 7-year-olds to a variety of 4-H experiences. Age requirement: ages 5–7 on Dec. 31 of the program year (Oct. 1–Sept. 31.)

4-H community club
Young people enroll in project(s) and participate in group activities and meetings. A recognized volunteer club leader and team of recognized volunteers organize and support the group. The club elects officers and plans an educational program of business, community service and learning together. Age requirement: ages 8–18 on Dec. 31 of the program year.

4-H single project clubs
Where available, membership in a single project club is an option. In a single project club, all members are enrolled in one specific project, for example, Photography. A recognized volunteer club leader and/or team of recognized volunteers organize and support the group. The club is similar to a community club; it elects officers, conducts educational programs, practices community service, fulfills county club expectations, etc. The only difference is that a single project is the focus. Age requirement: ages 8–18 on Dec. 31 of the program year.

4-H special interest (SPIN) project club or group*
*Where available
A 4-H SPIN club is a special interest club where five or more young people learn about a project of interest. Topics vary and include nature, heritage arts, science, engineering, gardening, technology, and more. SPIN clubs are led by recognized volunteers and may include episodic volunteers who are content area experts and have a passion and want to share their knowledge with young people. A SPIN club may meet only for a short period of time (at minimum 6 hours; for example, 1 hour for 6 weeks or one day for 6+ hours). The members belong to a primary community club or may be an entry point for new members. Age requirement: ages 8-18 on Dec. 31 of the program year and some SPIN projects may have special age requirements.

4-H after school
These 4-H clubs meet during or after school and often focus on a single subject, such as computers or arts. The amount of time the groups meet varies from a short period of time to a full 4-H program year. The club may also elect officers. The club plans an educational program of business, community service and learning. Age requirement: grades K–12 or equivalent.

4-H school enrichment groups
These groups meet during school time and use curricula supplied through 4-H. The groups are coordinated by partnerships of 4-H, University of Missouri Extension and school personnel. Most of the groups meet for a limited number of classroom hours rather than yearlong. Age requirement: grades K–12 or equivalent.

4-H group enrollments with community partners
These groups are usually partnerships of 4-H/University of Missouri Extension with other community organizations. Most groups meet for a limited number of hours (at least six hours) and focus on a special topic of interest. Age requirement: grades K–12 or equivalent.

4-H independent or individual membership
This option is for young people living some distance from a 4-H club, who have conflicts with school, work or other obligations, attending a college or university away from home, or who have a highly specialized interest. Individual members complete a plan and file it with the local University of Missouri Extension center. Age requirement: ages 8–18 on Dec. 31 of the program year. A copy of Y639, Individual 4-H Member Comprehensive Plan (fillable PDF) can be found under membership on the Missouri 4-H website: http://4h.missouri.edu/join-4h.aspx

FREQUENTLY ASKED PROJECT QUESTIONS

How many projects can I take?
There are so many projects offered, it can be hard to narrow down your selections. As you choose projects, consider how much time you have to devote to project work. It’s better to do a few projects really well than choose a lot and not have time to complete them. Also keep in mind that to truly master a project it may take you more than a year. You may enroll in the same project multiple years. Consider enrolling in projects you are familiar with as well as exploring projects that are new to you. When choosing projects, a general guideline for members who are 8-10 years of age is to be involved in about three projects. Those who are 11 and older could choose 3-6 projects. Every young person is different, so work with your club leader and county 4-H staff to find the projects that are the best fit for you.

I want to take a certain project, but there isn’t a leader. What do I do?
Project offerings are dependent on finding volunteer leaders. If a project isn’t offered in your club, check to see if it is offered on the county level. If a project leader isn’t easily found, often family members become the leader. Project materials are available for most projects. They are easy to read, explain the project, and offer suggestions on project meetings, exhibits and more.
Where do I find project curriculum?
Under each project listed in the Clover, you will find the curriculum that aligns with learning and advancement in Missouri 4-H projects. You will also find in each of the project areas suggested resources for all levels of the projects that supplement the curriculum. Each curriculum or resource guide for youth and adult volunteers has indicators of how to obtain the curriculum we believe will assist youth in learning and mastering a project area.

In the Clover, after a curriculum title, a leader guide, or a resource for learning, you will see one of the following:

= a freely available piece of literature in Adobe PDF format found on the Missouri 4-H Project web page or a free resource you may need to order.
$ = This piece of project literature has a cost. We have linked the least expensive place to purchase this literature on the Missouri 4-H Project page. The source of for purchase literature may vary from the 4-H Mall, to another state 4-H program, or even from MU Extension Publications.

How many project meetings do I need to attend?
A minimum of six hours of learning or instruction is the goal. As a general guideline, project leaders should plan eight meetings to allow for scheduling conflicts. Each meeting should be 1 to 1 ½ hours long.

4-H Membership
4-H membership is available year round to any youth. There may be criteria for participation in certain events and to access financial support. These requirements may be established by the club, county or state.

How do I show what I’ve learned through my 4-H experience?
Exhibiting 4-H project items is one way for young people to show what they have learned and accomplished. County fairs, achievement days, festivals and the Missouri State Fair provide places for 4-H members to showcase their work. Below are a few guidelines for 4-H exhibits.

• Exhibits should be 4-H member's own work.
• Exhibits should demonstrate the knowledge and skills gained by the 4-H member for the specific project in which they are enrolled.
• Exhibits should be made or completed in the current program year.

What if I have an animal project?
Some 4-H members will own or manage an animal for a 4-H project. For many of these projects, there are special requirements for competition, including deadlines for owning or managing the animal. Consult your local 4-H faculty for current deadlines. In addition, local fair boards or other partners might establish guidelines for participation. One of the objectives in owning an animal is to learn new skills in animal breeding, feeding, management and health. To accomplish this, the member should secure the animal as early in the year as possible. Livestock shows and exhibitions set up minimum dates for length of ownership necessary for exhibiting. For the Missouri State Fair, the dates are listed in the following chart.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Minimum Ownership Dates</th>
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<td>Steers/market</td>
<td>3/1</td>
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<tr>
<td>heifers</td>
<td></td>
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<tr>
<td>Breeding animals</td>
<td>6/1</td>
</tr>
<tr>
<td>Sheep</td>
<td></td>
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<tr>
<td>Breeding animals</td>
<td>7/1</td>
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<tr>
<td>Market lambs</td>
<td>6/1</td>
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<tr>
<td>Swine</td>
<td></td>
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<tr>
<td>Breeding animals</td>
<td>90 days</td>
</tr>
<tr>
<td>Breeding boars</td>
<td>Since farrowing</td>
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<tr>
<td>Market hogs</td>
<td>90 days</td>
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<td>All dairy cattle</td>
<td>6/1</td>
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<td>Dairy goats</td>
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<tr>
<td>Meat goats</td>
<td>6/1</td>
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<tr>
<td>Dogs</td>
<td>4/1</td>
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<td>5/1</td>
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<td>Rabbits</td>
<td>6/1</td>
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Poultry

| Meat pen | 5-10 weeks prior to show |
| Roasters | 8-10 weeks prior to show |
| Broilers | 6-8 weeks prior to show |
| Fryers   | 5-10 weeks prior to show |

### OTHER LEARNING EXPERIENCES IN 4-H

Missouri 4-H offers opportunities to all young people to learn and grow. This catalog lists many 4-H programs that might be of interest to you.

#### Group Learning opportunities (LO) programs and projects

Group learning opportunities are activities specifically designed for groups of 10 or more young people, in classrooms, clubs, camps and after-school programs. All of the activities are labeled with an "LO" and can be found in the Learning opportunities section on page 53.

#### “Learning by doing”

“Learning by doing” through 4-H reinforces the skills and content that young people are learning in school. See the following website for information on content skills of the Missouri Learning Standards: [http://dese.mo.gov](http://dese.mo.gov)

### 4-H Show-Me Quality Assurance Policy

All 4-H members enrolled in food animal projects (including beef, sheep, swine, dairy cattle, meat and dairy goats, rabbits and poultry) must complete the appropriate level of Missouri Show Me Quality Assurance (MSMQA) certification to be considered a 4-H member in good standing in that project. Other county good standing guidelines might also apply. Check with your local 4-H youth specialist for current local guidelines. The online tutorial is available at [http://agebb.missouri.edu/smqa/](http://agebb.missouri.edu/smqa/).

### Project briefs

Many of the following projects have project briefs available for free download. Project briefs are two-page overviews of a project to supplement project curriculum; they include activity and community service ideas, objectives, Show Me Character guidelines, fair project ideas, Missouri Learning Standards and project resources. Project briefs are available with the other curriculum resources on the project webpages.
Volunteering in 4-H

Volunteers are essential to the 4-H program. Adults and teens may apply for a variety of volunteer positions — being a 4-H council member, chairing a committee, leading a 4-H project group or 4-H club, teaching 4-H after-school enrichment programs, helping at the county fair or serving as an adult chaperone at camp.

All volunteer applicants must go through an annual selection process. Program staff make the final selection based on the best match between applicant skills, interest and current program needs.

Interested applicants should talk to their local 4-H staff to learn the most current application steps. The steps should be complete by 12/31 each year in order to get enthusiastic youth engaged in the program as soon as possible.

See more volunteer information, including application steps and training opportunities at http://4h.missouri.edu/volunteer.aspx

Missouri 4-H Volunteer Recognition

Frank Graham 4-H Volunteer Leadership Award
The Frank Graham 4-H Volunteer Leadership Award recognizes exemplary volunteers who work with young people. The statewide recognition is awarded annually and is named in honor of Frank Graham, a founding member of the Missouri 4-H Foundation and director of extension 4-H youth programs from 1958 to 1975. He was an avid supporter of volunteer leadership, believing that volunteers are the foundation of 4-H. Staff should email 4hyouth@missouri.edu for details about the award process.

Naomi Crouch 4-H Volunteer Leadership Award
The Missouri 4-H Foundation is pleased to sponsor the Naomi Crouch Volunteer Leadership Awards, which recognize volunteers and businesses or organizations that have made significant contributions to Missouri 4-H youth. The statewide recognition is awarded annually to two leaders and one business or organization. The award is named in honor of Naomi Crouch, a Clay County 4-H parent, volunteer and former Missouri 4-H Foundation trustee.

Missouri 4-H Youth Protection Policy

Volunteer and staff code of ethics

Work within the 4-H system.
As a 4-H volunteer, I am accountable for my actions to the county 4-H Council, county University of Missouri Extension Council, Missouri 4-H Youth Development programs and University of Missouri Extension. If my personal conduct is deemed by these bodies to violate this agreement or if I fail to meet any stated policy, I know I may be relieved of my 4-H duties.

Provide a safe environment.
I will not harm youth or adults in any way, whether through sexual harassment, physical force, verbal or mental abuse, neglect or other harmful experience.

Strive to be a positive role model.
By my example, I will help individuals learn to respect and cooperate with others. I will teach others to compete with honesty and fair play.

Work as a “team player” for the good of all persons.
I will work cooperatively with other adult volunteers for the good of all involved in the program.

Volunteer applicants must agree to uphold this policy on an annual basis as evidenced by digital signature in 4HOnline.
Project record keeping

The 4-H Project Record should be used with all 4-H projects. The purpose of the Y620, 4-H Project Record form is to give you a tool to record information about your learning experience in each project. This record sheet is for you and your project leader to use to set goals, keep records of your work, expenses, community involvement, leadership and more. Ask any high school senior filling out scholarship forms how helpful 4-H record keeping is, and they will tell you how much work it saved them! Good record keeping will help you when applying for recognition and scholarships throughout your 4-H involvement.

4-H Levels

4-H advancement programs consist of a series of steps that provide a framework for progressive learning within a specific project area. The advancement steps are written to provide a learning sequence for all members. Although all members should start with Step 1, the advancement program is designed so a 4-H member may advance as fast as he or she desires based on interest, effort and ability. A fourth- or fifth-grade 4-H member may take two or three years to complete Step 1; an eighth- or ninth-grade member may complete one or two steps in a year.

4-H Clover Kids (CK)

The 4-H Clover Kids Program is designed to introduce 5- to 7-year-olds to a variety of 4-H experiences. 4-H Clover Kids are involved in activities led by an adult that will help them learn how to get along and share with others, explore many different interests, build self-confidence, learn to communicate effectively and learn how to be part of a group. The ultimate goal is to make this age group so excited about 4-H that they will continue their enrollment beyond the 4-H Clover Kids experience.

The adult to child ratio for these clubs is five to eight children per adult leader. Weekly meetings are recommended. Clover Kids do not participate in competitive events, contests or shows. 4-H Clover Kids do not raise project animals or enroll in projects other than CK481, CK482, or CK483.

Resources for all 4-H Clover Kids Club project levels

The Big Book of 4-H Cloverbud Activities: Life Skills and Learning for K-2 Youth
Explore the World of Small Animals (LG4812)
Clover Kids: Membership Cards (Y4812)
Clover Kids: Pledge Poster (Y4813)
Clover Kids 1: Membership Pins–White (Y4815)
Clover Kids 2: Membership Pins–Black (Y4816)
Clover Kids 3: Membership Pins–Red (Y4817)

More 4-H Clover Kids Club information on the next page.
4-H Clover Kids small animal policy

4-H Clover Kids are encouraged to experience a wide range of activities. Learning about and enjoying small animals is one of the many opportunities children can have in a 4-H Clover Kids program. 4-H Youth Development programs developed the following list of approved small animals and policies to help ensure that children and volunteers have safe and meaningful experiences with these animals.

**Approved small animals:**
- Amphibians: frogs, toads
- Birds
- Cavies: guinea pigs, gerbils, hamsters
- Cats
- Chinchillas
- Dogs
- Fish
- Hedgehogs
- Lizards
- Mice
- Rabbits
- Rats
- Snakes

**Small animal safety policies**
- No wildlife allowed — follow Department of Conservation rules as specified in the Wildlife Code of Missouri.
- All animals must be caged, leashed or contained as appropriate and manageable by the child during 4-H Clover Kids meetings and events.
- Parent or guardian must be present with his or her child(ren) when animals are involved.

For more information: [http://4h.missouri.edu/clover-kids.aspx](http://4h.missouri.edu/clover-kids.aspx)

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**AEROSPACE (AS)**

Think about the excitement that accompanies sending a rocket into space, making a first solo flight, becoming an astronaut or someday visiting other planets. In the aerospace projects, you will learn more about aircrafts, rocketry and space through hands-on experiences and group interaction.

**Resources for all Aerospace project levels**
- Aerospace Helper’s Guide

**Aerospace 1 (AS811)**
- Identify different types of aircraft
- Learn how weather affects flying
  - Pre-Flight

**Aerospace 2 (AS812)**
- Explore space
- Learn the forces that act on a rocket and experiment with roll, pitch and yaw
  - Lift Off

**Aerospace 3 (AS813)**
- Learn to fly an airplane
- Use your investigation skills to discover the principles of flight, rocketry and astronomy
  - Reaching New Heights

**Aerospace 4 (AS814)**
- Learn pilot certification requirements
- Use engineering principles to design your own air and spacecrafts
  - Pilot In Command

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Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.

Legend:
- Free resource
- Paid resource
AGRONOMY (AG)

Agronomy is the science of using plants for food, fuel, feed and fiber. 4-H projects in agronomy explore the areas of plant genetics, soil science and even the weather. Agronomists hold professions in many areas and have roles that include creating healthier food, managing environmental impacts and creating energy from plants. Just imagine, you might invent a fuel for our cars.

Agronomy resource publications are available from MU Extension at http://extension.missouri.edu/crops. Publications include specific information for specialization in corn, cotton, forages, rice, small grains, sorghum, soybeans and wheat.

Resources for all Agronomy project levels
Leader Guide for 4-H Crop Projects: Level 4 — Fields of Opportunity

Field Crops 1 (AG982)
• Discover the world of farming
• Learn how plants grow
• Learn the value and uses of field crops

4-H Crop Projects: Level 1 — Seedy Business

Field Crops 2 (AG983)
• Take a soil sample
• Learn about the products made from field crops
• Decide what crops to grow and at what time

4-H Crop Projects: Level 2 — Green and Growing

Field Crops 3 (AG984)
• Learn about integrated crop management
• Discover hybrid selection
• Find out more about harvesting and marketing crops

4-H Crop Projects: Level 3 — Be’an All You Can Be

AMPHIBIANS AND REPTILES (AR)

Can you name and identify the venomous snakes of Missouri? Did you know that Missouri is home to 13 native species of lizards and 17 species of turtles — several of which are listed on the endangered species list? In these projects, you’ll step outside into the natural world, become an amateur herpetologist and discover interesting facts about amphibians and reptiles. See how many of the native Missouri species you can spot in the wild.

Resources for all Amphibians and Reptiles project levels
Amphibians & You: Student Journal
Amphibians & You: Leader’s Guide
Missouri’s 4-H Herp Watch Checklist
Missouri’s Turtles
Missouri’s Toads & Frogs
Lizards of Missouri
Snakes of Missouri

Amphibians and Reptiles (AR611)
• Learn how some toads and frogs can vocalize underwater
• Identify the three different types of habitats Missouri lizards live in
• Distinguish between a venomous and non-venomous snake
ARTS AND CRAFTS (AC)  
4h.missouri.edu/artscrafts/projects

Through hands-on activities such as cutting and pasting, sculpting, drawing, printing and construction, you’ll explore your creativity and have the chance to discover a hobby you might enjoy for the rest of your life. Experience different arts and crafts related careers, culture, science and technology.

Resources for all Arts and Crafts project levels
Palette of Fun Arts & Crafts Helper’s Guide

Arts and Crafts (AC311)
• Build an artistic foundation
  Getting Started in Arts $

Visual Arts: Drawing, fiber arts and sculpture (AC312)
• Continue building an artistic foundation
  Emphasis on drawing, fiber arts and sculpture

Visual Arts 1 - Sketchbook Crossroads $

Visual Arts: painting, printing and graphics design (AC313)
• Continue building an artistic foundation
  Emphasis on painting, printing and graphic design

Visual Arts 2: Portfolio Pathways $

Arts and Computers (AC314)
• Continue building an artistic foundation with technology in mind

Scrapbooking (AC315)
• Explore personalization and the relevance of scrapbooking
• Understand design and presentation considerations
  Pieces of Time $

BEEF (BF)  
4h.missouri.edu/beef/projects

Interested in the many careers and opportunities the beef industry has to offer? Through the beef project, you’ll learn the necessary skills to properly raise and care for your beef animal, including management techniques, the different cuts of beef, how to prepare your animal for the fair and what vaccinations to administer to prevent disease.

Make sure you own and are managing your steer by March 1 and breeding animals by June 1 to be eligible to show in the Missouri State Fair. Check with your local MU Extension center for local requirements.

To exhibit your livestock project at the Missouri State Fair, you must have completed the enrollment process in your county 4-H program, and have met all local criteria including compliance with the 4-H Show-Me Quality Assurance Policy.

Bite into Beef $

Beef 1 (BF121)
• Identify beef breeds
• Choose feed ingredients
• Halter breaking and fitting

Beef 2 (BF122)
• Understanding the digestive system
• Evaluating structure
• Learn beef meat cuts

Beef 3 (BF123)
• Advanced nutrition and health
• Yield grading
• Reproductive systems

More Beef projects on the next page.

Legend:
[ ] = free resource  [ ] = paid resource

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.
Bucket Calf Project (BC135)
Young people ages 8 to 12 learn to care and nurture a newborn calf with bottles or a bucket. Those who have had their 13th birthday by Jan. 1 of the current year would be ineligible. Acquire a calf within two weeks of its birth between March 1 and June 1 of the current project year. If shown, calf should be at least 90 days old. Calves born in late May or June 1 may not be old enough to show in the county fair. Check with your local MU Extension center for local requirements.

4-H Bucket Calf Project

CAKE DECORATING (CD)
4h.missouri.edu/cakedecorating/projects

From simple borders and decorations to more complex methods such as lattice work and tiered cakes, learn to make and decorate cakes and cookies. You’ll use your creativity to design baked goods your way and be introduced to a money-making skill and potential careers.

Resources for all Cake Decorating project levels
4-H Cake Decorating

Cake Decorating 1 (CD361)
• Bake and frost single-layer cakes
• Learn basic decorating procedures

Cake Decorating 2 (CD362)
• Bake two-layer cakes
• Make flowers, borders, and special effects like lace, lattice work, basket weave and more

Cake Decorating 3 (CD363)
• Bake stacked and tiered cakes
• Master flower making

CAREER EXPLORATIONS (CE)
http://4h.missouri.edu/careers/projects

Your career awaits! Learn how to prepare for a career that interests you. Decide what kinds of work are a good match for your talents and abilities. Discover choices for education and training after high school, and what they cost. Investigate salaries, benefits, and careers in demand. Create a career portfolio. Learn how job shadowing and volunteer work can take you down the path to your chosen career.

Target audience: Senior (ages 14–18)

Resources for all Career Explorations project levels
Build Your Future: Facilitator Guide

Career Explorations (CE100)
• Identify how your skills and interests tie in to career choices
• Find and land an internship
• Identify college degrees and training you will need for your career
• Build a portfolio of career skills and abilities
• Explore entrepreneurship as a career option
• Learn how to search and apply for jobs, create a resume, and nail that interview

Build Your Future: Youth Notebook
CATS (CA)

Cats need care and attention. The Cats project helps you explore how a cat can fit into your family’s lifestyle and how to be an excellent caretaker of your feline friend. Cats need your love and guidance to live long and healthy lives. You’ll learn about nutritional aspects of a cat’s diet, health needs and practicing responsible ownership.

Resources for all Cats project levels
Cat Helper’s Activity Guide
Cat Showmanship Guide

Cat Care 1 (CA177)
- Identify different cat breeds and parts of the cat
- Learn how to care for your new cat
- Intro to care including grooming, feeding, safety and health care

Purr-fect Pals — Level 1 $
4-H Cat Project — Level 1 ⬤

Cat Care 2 (CA178)
- Learn cat origins, breeds and characteristics
- Skill areas emphasized: how to select a cat or kitten, nutrition, health care, emergencies and first aid
  Climbing Up! — Level 2 $
  4-H Cat Project — Level 2 ⬤

Cat Care 3 (CA179)
- Study the anatomy and behavior of your cat
- Care of pregnant cats and kittens
  Leaping Forward — Level 3 $
  4-H Cat Project: Cat Anatomy and Physiology — Level 3 ⬤

CITIZENSHIP (CI)

Have you ever wanted to plan and take action on an issue you care about in your area? Step into the role of a mayor, city council member, regional planner or public administrator to learn how decisions are made and problems are solved in your community.

Target audience: Intermediate (ages 11–13) and Senior (ages 14–18) levels; adaptable for Junior (ages 8–10).

Resources for all Citizenship project levels
Citizenship Guide’s Handbook

Citizenship (CI200)
- Learn what citizenship is and why it’s important to be involved in your community
- "Public" vs. "private" - what is the difference?
- Consider interests of your group and needs of your community
- Identify community stakeholders who can help
- Learn how to write a mission statement, conduct a survey, create a petition, raise funds and media coverage
  Citizenship Adventures Kit

CLOTHING (CL)

When friends ask you who made your outfit, you can say with pride, “I was the designer and tail!” These clothing projects will teach you the basics like threading a sewing machine or sewing a pillow. The advanced units will also teach you how to take the design of your choice and customize it for the perfect look, color and fit.

More Clothing projects on the next page.

Legend:
- = free resource
= paid resource

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.
Sewing (Clothes You Make)

Resources for all Sewing project levels
STEAM Clothing: Maker’s Guide to Sewing Stuff §
STEAM Clothing Activity Manual: Beyond the Needle §
4-H Fashion Revue Guide
The Absolute Easiest Way to Sew: A Beginner’s Sewing Guide §

Clothes You Buy

Clothing and textile consumer skills are emphasized in this project. You’ll gain confidence in your appearance and ability to select accessories and care for clothing.

Resources for all Buying Clothes project levels
4-H Fashion Revue Guide

CLOWNING (CW)

Clowning is part of a grand and noble tradition dating back centuries. You’ll learn about some of history’s great performers who influenced modern day clowning as well as clown etiquette and how to create your own clown face and costume. From props to pantomime, this project will teach you funny new techniques and help you find great ways to perform them.

Clowning (CW231)

• Explore clowning as a communication outlet
• Learn the basics of pantomime and ventriloquism
• Build confidence through performance and self-expression

4h.missouri.edu/clowning/projects

Communicating Through Pantomime
The Art of Clowning
The Art of Clowning Leader’s Guide
**COMMUNICATIONS (CM)**

Have you ever had an important idea to share? Would you like to get better at meeting friends and influencing people? Improving your communication skills through this project can make every part of your life better, and you’ll have a lot of fun along the way.

**Resources for all Communications project levels**

Communications Toolkit for leaders

Communications 1 (CM237)

Target Audience: Grades 3-5

- Building confidence
- Active listening
- Identifying aggression

Communications Module 1

Communications 2 (CM238)

Target Audience: Grades 6-8

- Conflict resolution
- Cultural differences
- Online communication

Communications Module 2

Communications 3 (CM239)

Target Audience: Grades 9-12

- Evaluating advertising
- Leadership and teamwork
- Resumes and cover letters

Communications Module 3

**COMPUTERS AND PROGRAMMING (CP)**

Explore the world of computers in the computer project! Learn the different parts of a computer and how they work. Also learn about the internet and the many opportunities that computers and technology provide.

**Computer programming**

**Learn computer programming by creating your own games and animations.** This 4-H project uses two easy to use but powerful computer programming environments created especially for kids. Learn to program fun animations and put the characters into computer games that you create. Use a programming environment to create your computer masterpiece. Scratch is recommended for third-grade through high school students, and Alice is recommended for middle school students through high school.

**Scratch Programming 1 (CP895)**

- Learn basics of computer programming
- Create programs using the Scratch environment
- Add control and mix graphics, animations, music and sound to your programs

Discovering Computer Science & Programming Through Scratch — Youth

Discovering Computer Science & Programming Through Scratch — Facilitator

To get started, visit [http://scratch.mit.edu/](http://scratch.mit.edu/) for guides and software download.

For more Communications projects, see Public Speaking on page 42 and Theatre Arts projects on page 50.

More Computers and Programming projects on the next page.

Legend:

- = free resource  = paid resource
Alice (CP896)
Alice is an innovative 3D programming environment that makes it easy to create an animation for telling a story, playing an interactive game, or a video to share on the web.
Youth will:
• Learn object oriented programming
• Use Alice to create animated movies and simple video games.
• Populate a virtual world within Alice, objects (e.g., people, animals and vehicles) populate a virtual world and create a program to animate the objects.
To get started, visit http://alice.org/ for guides and software download.

Other Programming Languages or Computer Programs (CP897)
We don’t want to limit the learning of computing languages used or computer creations. Computer science is a growing field and youth can become creative and innovative on their own.
• Consider programming and creating/building a technology with Raspberry Pi or Arduino.
• Go deeper with other resources such as Code Academy and Khan Academy which can supplement learning in this area.
• Learn Python scripting
• Discuss with your 4-H staff a self-determined project in this area (requires a downloadable Self-determined Project form).

CONSUMER SAVVY (CS)
Young people like you consume more than $175 billion in goods and services each year. This project will help you become a better informed and more responsible consumer in today’s dynamic marketplace. Learn what it means to be a consumer through saving, spending and sharing.

Resources for all Consumer Savvy project levels
Consumer Savvy Helper’s Guide
Family Consumer Science Judging Guide
Judging: A 4-H Teaching Technique

Consumer 1 (CS431)
Learn about...
• Spending, bargain shopping and getting the best buy
• Online shopping
• Saving

The Consumer in Me

Consumer 2 (CS432)
Learn about...
• Consumer rights and responsibilities
• Consumer decisions
• Advertising
• Consumer internet safety

Consumer Wise

Consumer 3 (CS433)
Learn about...
• Consumers in the global marketplace
• Consumer rights
• Living on your own

Consumer Roadmap

CROCHET (CR)
A sweater, an afghan and a hat are all things that can be crocheted. This art of yarn and crochet hooks can become a hobby you can take anywhere. Amaze your family and friends with the special gifts you make for them.

Crochet (CR321)
• Learn to work stitches, rows and rounds
• Join pieces, change colors and determine gauge and sizing
• Learn to hold a hook and yarn

I Can’t Believe I’m Crocheting (2006 edition)
(Young people and leaders use the same book.)
DAIRY (DA)

Ice cream, cheese and milk are a few of the great products that dairy cows produce. The Dairy project is a fun way to learn about the management and care of dairy cattle and the many career opportunities in the dairy industry. Activities in this project will help you gain knowledge in learning proper feeding, health, selection and marketing. You will also learn about the many dairy products and various uses of cow’s milk.

To exhibit your livestock project at the Missouri State Fair, you must have completed the enrollment process in your county 4-H program, and have met all local criteria including compliance with the 4-H Show-Me Quality Assurance Policy.

Resources for all Dairy project levels
Dairy Advancement Program
4-H Dairy Beef Project Guide
Dairy Helper's Activity Guide
Learning About Dairy, a Resource Guide

Dairy 1 (DA131)
- Select your project animal
- Practice record keeping
- Prepare for the show
  Cowabunga!

Dairy 2 (DA132)
- Handling and caring for your animals
- Milking, marketing and careers
- Judging and identification
  Mooving Ahead

Dairy 3 (DA133)
- Balancing a ration
- Reproduction and breeding
- Managing your herd
  Rising to the Top

Judging Dairy Cattle (DA134)
What are the characteristics to look for in a prize dairy animal that yields the most milk? Learn to evaluate animals, place them like a pro and justify your decision.
  Judging Dairy Cattle — Giving Reasons

Bucket Calf Project (BC135)
Young people ages 8 to 12 learn to care for and nurture a newborn calf with bottles or a bucket. Those who have had their 13th birthday by Jan. 1 of the current year would be ineligible. Acquire a calf within two weeks of its birth between March 1 and June 1 of the current project year. If shown, calf should be at least 90 days old. Calves born in late May or June 1 may not be old enough to show in the county fair. Check with your local MU Extension center for local requirements.
  4-H Bucket Calf Project

DOGS (DG)

Who can resist those big brown eyes or that tail wagging to greet you? If your best friend is your dog, then you’ll like this project. Together you will learn about dog obedience, grooming and nutrition to help your dog live a long and happy life. As you advance, you can participate in showmanship contests where you’ll teach your dog to retrieve, jump hurdles, drop on recall and broad jump.

Each of these levels of Dog includes knowledge, obedience and showmanship. The progression reflects the Missouri 4-H modules, which are part of the curriculum for Dogs.

Make sure you own and are managing your dog by April 1. Check with your local University of Missouri Extension center for local requirements and dates.

More Dogs projects on the next page.
Resources for all Dog project levels
Dog Advancement Program 
Missouri 4-H Dog Modules 
Dog Resource Handbook 
Dog Helper’s Activity Guide 
Dog Helper’s Activity Guide 

Dog 1 (DG171)
- Choosing your dog
- Practice dog behavior and training
- Basic Grooming

Wiggles ‘n’ Wags 

Dog 2 (DG172)
- Investigate your dog breed
- Nutrition and parasites
- Fitting and showing

Canine Connection 

Dog 3 (DG173)
- Health and breeding
- Dogs and service

Leading the Pack 

ELECTRICITY (EL) 
4h.missouri.edu/electricity/projects

De-mystify the “magic” of electric circuits, magnetism, motors and electronics. From building burglar alarms to learning how to select a really good stereo and other consumer items, this project offers opportunities for hands-on experiences and knowledge you will use in the future. Experience technology firsthand while learning communication and decision-making skills.

Resources for all Electricity project levels
Electricity Excitement Helper’s Activity Guide 

Electricity 1 (EL831)
Target audience: Grades 4-5
In this project explore:
- Effects of magnetism
- Insulation as it relates to electricity
- How to build a flashlight, compass, electromagnet and electric motor

Magic of Electricity, Unit 1 

Electricity 2 (EL832)
Target audience: Grades 6-7
In this project:
- Build circuits and test voltages
- Build a rocket launcher
- Build a burglar alarm

Investigating Electricity, Unit 2 

Electricity 3 (EL833)
Target audience: Grades 8-9
In this project:
- Learn how to measure electrical usage
- Learn how to replace electrical switches
- Learn how to determine electrical loads
- Evaluate light bulbs and test for electrical power

Wired for Power, Unit 3 

Electricity 4 (EL834)
Target audience: Grades 10-12
In this project:
- Learn the basics of solid-state electronics
- Understand modern day electronic equipment through hands-on activities for practical experience. This unit is for the intermediate to advanced learner.

Entering Electronics, Unit 4 

ENERGY (EG) 
4h.missouri.edu/energy/projects

Whether it’s your community, home, family car or iPod; energy makes things happen. You will likely experience dramatic changes related to energy during your lifetime, so understanding the fundamental concepts of energy is important. You will gain knowledge and skills to understand energy development and use, and the impact on economics and the environment which could lead to future careers.

Young learners and leaders can find diverse energy activities, resources and curriculum for exploration from the National Energy Education Department (NEED) Project at http://www.need.org.

More Energy projects on the next page.
Power of the Wind (EG861)
Target Audience: Grades 6-7
Power of the Wind: Energizing Our Future is designed to ignite curiosity and leadership in renewable energy.

Resources for Power of the Wind projects
Power of the Wind Facilitator Guide
Power of the Wind Youth Guide

ENGINEERING AND MECHANICAL SCIENCE (AT, SE, WO)

Agricultural Tractor

Do you like learning about large machines and how they work? This project provides youth with educational information about agricultural tractors and machinery that develops project skills (i.e., principles of engine operation, hydraulic systems, electrical systems, safe operation) and life skills (i.e., decision-making, using science and technology, developing communication skills). These fun-filled, hands-on learning experiences are provided under the direction of caring adults.

Resources for all Agricultural Tractor levels
Exploring 4-H Tractor Restoration Opportunities
Tractor 1 (AT820)
- Skill areas emphasized: proper safety procedures, mechanics of the engine, accessory equipment, how to use the operator’s manual, maintenance of the agricultural tractor and function of different operational systems.
  Starting Up: Getting to Know Your Tractor
Tractor 2 (AT821)
- Learn about tractor safety and maintenance, mechanics of the engine, accessory equipment and function of different operational systems
  Starting Up: Getting to Know Your Tractor
Tractor 3 (AT822)
- Learn about farm safety and maintenance, different types of oil systems, fuel safety and PTO hooking
  Moving Out: Learning About Your Tractor and Farm Machinery
Tractor 4 (AT823)
- Learn more about five major areas: safety, maintenance, mechanics, operational systems and equipment
  Learning More: Learning About Agricultural Tractors and Equipment

Small Engines (SE)

Lawn mowers, snow blowers, personal water craft, go carts, model airplanes and ATVs are just a few of the hundreds of machines around us every day that are powered by small gas engines. In this project you will have hands-on experiences that will help you understand how small engines work and how to keep them working.

Resources for all Small Engines Project levels
Small Engines Helper’s Guide
Small Engines 1 (SE851)
- Discover tools of the trade and how small engines work
  Crank It Up!
Small Engines 2 (SE852)
- Learn about engine sizes, compression ratios and safety issues
  Warm It Up!

More Small Engines projects on the next page.
Small Engines 3 (SE853)
- Tear down and rebuild an engine

Woodworking (WO)

Have you ever wanted to make something with wood? This project is an opportunity for you to create and construct items using wood and woodworking tools. From the basics of using a tape measure and a hammer to advanced equipment like routers and table saws, there’s something for everyone. Have fun by learning new things and creating useful items.

Resources for all Woodworking Project levels
Woodworking Helper’s Guide
4-H Wood Science: Leader Guide
Woodworking 1 (WO871)
- Develop skills such as measuring, squaring and cutting a board, driving nails, and using clamps and screws
- Learn safety rules, tool safety settings and how to use safety gear
  Measuring Up
  Working With Wood and Tools: Unit I Member Manual
Woodworking 2 (WO872)
- Measure, cut, sand, drill, and use advanced hand and power tools
- Learn the importance of proper sanding and finish application
  Making the Cut
  The Wonderful World of Wood: Unit II Member Manual
Woodworking 3 (WO873)
- Practice measuring angles, cutting dado and rabbet joints
- Use a circular saw, a table saw and a radial arm saw
  Nailing It Together
  Building Bigger Things: Unit III Member Manual
Woodworking 4 (WO874)
- Use router, portable planer and a jointer
- Make blind mortise, tenon joint and dovetail joints
  Finishing Up

ENTOMOLOGY (EN)

Explore the amazing world of insects and their arthropod relatives. Learn exciting new things about insects and their life cycle. Collect insects and construct an entomology box so that others can learn about insects as well. This project is filled with many hands-on activities that you will enjoy and want to share with others.

Resources for all Entomology project levels
Entomology pins may be ordered from http://www.novatech-usa.com/IPIN02-PK-100
Butterfly Gardening and Conservation
Teaming With Insects Facilitator Guide
Missouri 4-H Entomology Supplementary Guide to Insect Collecting
Getting to Know the Insect
4-H Entomology Project Leader Guide

More Entomology projects on the next page.
Beekeeping

This project will help you learn about bees and beekeeping. You will learn about the types of bees, the honey and wax they produce, the plants that attract bees and the equipment a beekeeper needs. If you want to set up your own hive, you’ll learn basic beehive care, and how to extract and bottle honey. Advanced topics include increasing the number of your honey bee colonies, increasing honey production, producing special kinds of honey and learning more about bee societies.

Resources for All project levels

4-H Beekeeping Manual
Beekeeping Tips for Beginners
Seasonal Apiary Management for Missouri
MU Extension insect publications: http://extension.missouri.edu/insects
Entomology at the University of Kentucky: 4-H Youth Entomology, Unit 1

Beekeeping 1 (EN924)
Learn about:
- Types of bees
- Honey and wax
- Plants that attract bees
- Equipment needed by beekeepers
  Understanding the Honey Bee

Beekeeping 2 (EN925)
- Acquire a colony of bees and learn to care for a beehive throughout the year
- Basic beekeeping operations that result in the production of extracted, chunk or cut comb honey
  Working With Honey Bees

Beekeeping 3 (EN926)
- Increase the number of your honey bee colonies
- Increase honey production, producing special kinds of honey
- Bee societies
- Manage honey bee diseases and parasites
  Advanced Beekeeping Methods

Butterfly

Butterfly Wings (EN927)
In Project Butterfly WINGS, youth explore the outdoors through guided inquiry, learn to identify the butterfly families and common butterflies, and contribute to science.
- Learn about butterflies and their role in the environment

ENTREPRENEURSHIP (EP)

4h.missouri.edu/entrepreneur/main

Earn money doing what you love. You’ll become a business investigator exploring the entrepreneurship scene, learn what it takes to become a successful businessperson, and have the chance to create a startup plan while exploring business opportunities in your 4-H projects and community.

Target audience: Intermediate (ages 11–13) and Senior (ages 14–18). Can be adapted for Juniors (ages 8–10).

Resources for All project levels

ESI Leader Guide (Levels 1-3)

Entrepreneurship 1 (EP442)
Become a business investigator. Find out what it takes to be an entrepreneur. Investigate yourself, your family and who is down the block.

ESI Unit 1, Discover the E-Scene
ESI Unit 1, Discover the E-Scene with Clifton Youth Strengths Explorer

More Entrepreneurship projects on the next page.
Entrepreneurship 2 (EP443)
Take your business investigation to the next level. Investigate what you value and how you can make a difference, dress like a pro, manage your time and make the sale.

ESI Unit 2, The Case of Me
Spanish Version: ESI Unit 2, Analizando Mi Caso

Entrepreneurship 3 (EP444)
Finish as a master business investigator. Explore your business ideas, set goals, conduct market research, determine a price, manage your money and plan and run your own biz.

ESI Unit 3, Your Business Inspection

ENVIRONMENTAL SCIENCE (EE, SW, WC)
Learn about environmental science through hands-on learning experiences in natural sciences and technology.

Exploring Your Environment (EE)
How does water pollution affect wildlife? How can you decrease your energy use? Learn the answers to these questions and more in this project.

Target audience: ages 11–13
These are not sequential projects; you may enroll in either project in any order.

Resources for all Exploring Your Environment projects
Exploring Your Environment: Facilitator Guide

Soil and Water Science (SW)
The Soil and Water Science project teaches youth about soil, water and environmental stewardship. Learn about soil and water quality, how they interact and how we can protect and preserve them.

More Soil and Water Science projects on the next page.

Download Business Start-Up Guides
If you are wondering how you can earn an income from your 4-H project work and become your own boss, Missouri 4-H has created a series of 4-H Business Start-up Guides to help young entrepreneurs like you in locating resources needed to start a business enterprise:

Working With Animals (Y4411)
Working With Food (Y4412)
Working With Plants (Y4413)
Working With Practical Arts (Y4414)
Working With Fine Arts (Y4415)
Babysitting (Y4416)

The start-up guides are not a how-to manual, but rather a resource to lead young entrepreneurs to available information.

Download the free PDFs: http://4h.missouri.edu/entrepreneur/projects

More Soil and Water Science projects on the next page.
Soil and Water Science 2 (SW917)
- Put basic concepts into action to apply more advanced soil and water concepts and interactions with the environment.
  4-H Soil and Water Science: Level 2
  4-H Soil and Water Science: Facilitator’s Guide, Level 2

Soil and Water Science 3 (SW918)
- Activities are divided into chapters based on how you might use the information you have learned — as a homeowner, resident of a watershed, food and fiber producer (farmer), mayor, teacher or legislator.
  4-H Soil and Water Science: Level 3
  4-H Soil and Water Science: Facilitator’s Guide, Level 3

Weather and Climate Science (WC)
Learn basic information about weather and climate science, including what causes variations in weather and why we have different seasons and climates on the earth. In this project, you will observe and record weather conditions and learn weather symbols.

Weather and Climate Science 1 (WC934)
- Understand the signs of weather around you
- Learn the difference between weather and climate
- Experience how weather affects the things you do
  4-H Weather and Climate Science Youth, Level 1
  Facilitator’s Guide, Level 1

Weather and Climate Science 2 (WC935)
- Understand drivers of weather systems and climate science
- Learn about air pressure, clouds, wind, humidity and fronts
  4-H Weather and Climate Science Youth, Level 2
  Facilitator’s Guide, Level 2

Weather and Climate Science 3 (WC936)
- Explore climate science as a career or potential college major
- Educate others about weather and climate science
  4-H Weather and Climate Science Youth, Level 3
  Facilitator’s Guide, Level 3

EXPLORING 4-H (EX)
Discover your interests, potential 4-H projects and find out more about where you live. For first-year members only, ages 8-10. Exploring 4-H does not include exhibition of project animals or Shooting Sports. To participate in these areas, members should enroll in the appropriate animal project.

Exploring the Treasures of 4-H (EX261)
- Explore 4-H activities
- Identify your interests
- Explore your family, friends, and community
  Exploring the Treasures of 4-H
  Treasurers of 4-H Helper’s Guide

FILMMAKING (FM)
Sharing your creativity with the world can be fun, but doing so with solid filmmaking skills is even better. Many important life skills can be developed through filmmaking, including communication, self-expression, decision-making, problem-solving and critical thinking. Learn at your own pace, through a series of video modules from National 4-H, and check with your 4-H office for the next regional filmmaker’s training. Through local training, national resources and special events like FilmFest 4-H, you can attain the skills to express your vision at the highest level!

More Filmmaking projects on the next page.

Use Y620,4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.

Legend:
- free resource
- paid resource
Filmmaking (FM270)
- Bring ideas from your imagination to reality
- Explore communications technologies
- Learn how TV, film, and productions are made
- Learn to be a producer - not just a consumer - of digital media

Movie Magic Curriculum 📚
4-H Filmmaking DVD 🎥

Resources
- Start your filmmaker's training with the national 4-H video workshop at http://www.4-h.org/curriculum/filmmaking.
- Then check out the national 4-H filmmaking resource library at http://4-h.org/parents/curriculum/filmmaking for some very interesting reading.
- Other resources, such as Y2460, General Videography Tips for PSAs (PDF), can be found at http://4h.missouri.edu/filmmaking/projects.

FINANCIAL LITERACY (FL)

Develop the skills you’ll need to successfully manage your personal and perhaps business finances. This project focuses on understanding financial decisions and consequences and knowing your rights and responsibilities as a consumer.

Resources for all Financial Literacy project levels
Family Consumer Science Judging Guide (LG307)
My Financial Future Facilitator Guide 📚

Financial Literacy 1 (FL421)
Target audience: Grades 5-8
- Learn how to define wants and needs
- Learn to track expenses and develop a spending plan
- Learn about banks and savings plans
- Learn about the consequences of using credit

My Financial Future: Youth Notebook Beginner 📚

Financial Literacy 2 (FL422)
Target audience: Grades 9-12
- Learn about earning income and career planning
- Learn to set goals and develop spending and saving plans
- Learn about banks, credit unions and credit reports
- Learn about investments

My Financial Future: Youth Notebook Advanced 📚

FOODS/NUTRITION/PRESERVATION (FN)

Have fun learning the basics of cooking and then advance to gourmet and international meals. Learning the heritage of many foods as well as consumer buying skills to get the most from your money are also opportunities for you in this project area.

Cooking
Learn about food preparation, food and kitchen safety, food science, meal planning, and nutrition. Each manual builds on the skills learned in the previous level, and members complete project activities for each level in two to three years.

Resources for All project levels
4-H Cooking Helper’s Guide (covers 101, 201, 301, 401)
Family Consumer Science Judging Guide 📚

Foods 1 (FN551)
Learn about:
- Kitchen basics
- Food and kitchen safety
- How to measure
- How to prepare simple recipes

4-H Cooking 101 📚

More Foods/Nutrition/Preservation projects on the next page.
**Foods 2 (FN552)**
Learn about:
- Fire safety in the kitchen
- Nutrition labels
- Preparing recipes and a meal
  
  4-H Cooking 201

**Foods 3 (FN553)**
Learn about:
- Outdoor cooking
- Party planning
- Preparing recipes from different food groups
  
  4-H Cooking 301

**Food Science**

Hands-on experiments help you discover the science behind the foods you eat. Each youth curriculum contains a different facilitator guide for leaders.

**Food Science: What's On Your Plate**

**Target audience:** Grades 5-12

**Resource for all project levels**

What's On Your Plate? Facilitator Guide (Units 1-4)

**Food Science 1 (FS566)**

- Learn about the science of baked goods and the best methods for preparing these foods
  
  What's On Your Plate Unit 1: The Secrets of Baking

**Food Science 2 (FS567)**

- Explore the way eggs are used in foods and how milk turns into cheese
  
  What's On Your Plate Unit 2: The Power of Protein Chemistry

**Food Science 3 (FS568)**

- Investigate how to prepare fruits and vegetables so they taste and look appealing in color and texture
  
  What's On Your Plate Unit 3: The Inner Mysteries of Fruits and Vegetables

**Food Science 4 (FS569)**

- Learn about food scientists
- Create a new beverage and learn a basic food science skill - crystallization
  
  What's On Your Plate Unit 4: Be a Food Scientist

**International Foods**

Learn about the heritage of many foods and explore your family's food heritage.

**Resources for project:**

Food, Culture and Reading: A Facilitator’s Guide

**More Foods/Nutrition/Preservation projects on the next page.**

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Legend:
- [ ] = free resource
- [x] = paid resource

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project's webpage. Look for the URL listed in the section headings.
Microwave Magic

Learn to use the microwave oven to prepare simple snacks and complete meals.

**Resources for all project levels:**
Microwave Magic Helper’s Guide

**Microwave Magic 1 (FN561)**
- Discover how the microwave works
- Learn to use the microwave safely
- Learn to prepare foods such as scrambled eggs, apples, popcorn treats and more
  
  Bag of Tricks

**Microwave Magic 2 (FN562)**
- Learn about wattage
- Learn to prepare foods such as potatoes, vegetables, brownies and more

**Microwave Magic 3 (FN563)**
- Learn more advanced microwave techniques like shielding, defrosting and browning
- Learn to prepare foods such as casseroles, lasagna, chicken, pork chops, fruit crisp and more
  
  Amazing Rays

**Microwave Magic 4 (FN564)**
- Adapt recipes for the microwave
- Prepare cakes, pies, stew, and more
- Learn to make gifts such as play dough, bird feeders and bake dough ornaments
  
  Presto Meals

Preservation

The Healthy Lifestyles Home Food Preservation Series includes four manuals developed based on USDA food preservation standards. Each manual includes nutrition information, kitchen basics, the basics of each preservation procedure, and activities for you to learn the techniques.

**Freezing (FP500)**
- Learn about kitchen and food safety basics
- Properly freeze fruits, juices, vegetables, meat, fish and poultry
- Package and freeze your product
  
  Freezing Project Manual

**Drying (FP501)**
- Learn about kitchen and food safety basics
- Properly dry fruits, vegetables and herbs
- Package and store your product
  
  Drying Project Manual

**Boiling Water Canning (FP502)**
- Learn about kitchen and food safety basics
- Learn boiling water canning basics
- Learn to boiling water can fruit, tomatoes, salsa, jams, jellies, and pickles
  
  Boiling Water Canning Project Manual

**Pressure Canning (FP503)**
- Learn about kitchen and food safety basics
- Learn pressure canning basics
- Learn to pressure can vegetables, beans, meats including poultry, and fish
  
  Pressure Canning Project Manual

**Breads (FN581)**
- Learn about grains
- Learn to make pancakes, muffins, and sweet breads
- Learn to make gluten-free baked items
- Learn about careers in the kitchen
  
  Let’s Bake Quick Breads

Learn how and why quick bread recipes are so tasty. See what makes a wheat kernel tick and learn how the quick bread ingredients react with one another. You will also explore careers in the kitchen and learn how to alter a recipe for more healthful benefits. Includes gluten-free recipes.
FORESTRY (FO)

Learn how to identify trees, manage woodlands (for pleasure or for profit), understand wood products and preserve the forest for future generations to enjoy.

Resources for all Forestry projects:
Forestry Helper’s Guide
50 Common Trees of Missouri
Missouri’s Oaks and Hickories

Forestry 1 (FO931)
- Identify different types of trees and tree parts
- Explore characteristics of different forests, what forests need to grow and thrive
- Learn about the different products people get from trees and forests
  Follow the Path

Forestry 2 (FO932)
- Take a closer look at the inner-working of trees, forest change and the health benefits trees have on people
  Reach for the Canopy

Forestry 3 (FO933)
- Look at forests on a global scale, learn to care for trees and think about how to conserve forests
  Explore the Deep Woods

Conservation opportunity — 4-H Million Tree Project
Missouri 4-H members, families, project groups, community clubs, after-school clubs, school enrichment programs and camps are invited to participate in the 4-H Million Tree Project. This project was conceived after a Pacifica, Calif. 4-H member decided to do something to combat global climate change. This 4-H service project improves the quality of our environment. Sign up and report your tree planting project online. Count your trees for Missouri 4-H!

More information: http://4h.missouri.edu/milliontrees/main

GEODESY (GG)

Much of our knowledge about the earth comes from rocks, minerals and fossils that surround us. Explore the earth— in your backyard, a creek bed, a road cut, anywhere you go.

Geology (GG941)
- Distinguish the differences in Igneous, Sedimentary and Metamorphic Rocks
- Collect specimens, develop a collection, make a display box and exhibit it at the fair
  4-H Geology: Introduction to the Study of the Earth
  Geology Leader Guides 4-H

GEOSPATIAL (GS)

Global Positioning Systems (GPS) and Geographic Information Systems (GIS) are hot technologies. Explore the world of geospatial science and go where no 4-H project has ever gone before!

Resources for all Geospatial projects:
4-H’ers and leaders in Missouri qualify for free GIS software to support youth programs and projects. Request the desktop or online software access through the Missouri Esri GIS K-12 License email mga@missouri.edu for more information.

Conservation opportunity — 4-H Million Tree Project
Missouri 4-H members, families, project groups, community clubs, after-school clubs, school enrichment programs and camps are invited to participate in the 4-H Million Tree Project. This project was conceived after a Pacifica, Calif. 4-H member decided to do something to combat global climate change. This 4-H service project improves the quality of our environment. Sign up and report your tree planting project online. Count your trees for Missouri 4-H!

More information: http://4h.missouri.edu/milliontrees/main

More Geospatial projects on the next page.
Geospatial 1 (GS991)
• Where in the world are you? Young people are introduced to new ways of thinking about geographic positions
• Introduction to navigational tools (GPS, compasses, maps and globes) identifying locations, measuring distances and more
• Learn how to use GPS technology for multiple purposes
  Going Places with GPS (Spanish version also available)

Geospatial 2 (GS992)
• Future map-makers will learn how to collect data, combine the data with geographical positions and then make your own maps.
• Can data and maps solve problems? Get outside and do field studies and make maps about things you know or want to learn more about.
  Tech Enabled Field Studies - Leader Guide (or advanced youth guide)

Geospatial 3 (GS993)
• Advanced users will understand the basics of Remote Sensing Science through the curriculum
• This project also enables self-determined exploration of emerging technologies such as unmanned aerial vehicles (UAV's) and unmanned aerial systems (UAS's) also known as “drones” for humanitarian, agricultural, natural resources and more (please note there is no 4-H Drone Curriculum at this time).

GLOBAL EDUCATION (GE)

Do you ever wonder what kids from other cultures do for fun? What do they eat? What language do they speak? In this project you will have the opportunity to learn about other cultures, similarities and differences among families around the world. It will also prepare you for a possible exchange experience in the future. See page 69 for additional opportunities.

Global Education (GE221)
Leader’s Guide, Seeing i2i
Participant’s Guide, Seeing i2i
Got the travel bug? Check out international opportunities at http://4h.missouri.edu/global-ed/main.

Additional resource
WeConnect curriculum prepares youth to thrive in our culturally diverse world. This curriculum is designed for middle school youth (grades 6-8) but can be adapted to suit both younger and older age groups. Order directly from Shop 4-H at http://shop4-h.org/curriculum.

GOATS (GA)

Learn about goat breeds, management, grooming and showmanship. And along the way, find out why their offspring are named “kids.” Make sure you own and manage your goat by June 1. Check with your local MU Extension center for local requirements and dates. To exhibit your livestock project at the Missouri State Fair, you must have completed the enrollment process in your county 4-H program, and have met all local criteria including compliance with the 4-H Show-Me Quality Assurance Policy.

What you will do:
• Learn about goat parts and breeds
• Figure the cost to raise goats
• Find out how to care for goats

More Goats projects on the next page.
Dairy Goats

Resources for all Dairy Goat project levels
Dairy Advancement Program
4-H Dairy Goat Project Guide
Dairy Goat Helper’s Guide
Goat Resource Handbook

Dairy Goats 1 (GA136)
• Selecting your goat project animal
• Showing your project
• Goat dairy products

Getting Your Goat,

Dairy Goats 2 (GA137)
• Nutrition and feeds
• Reproduction and raising your kids
• Practice your judging skills

Stepping Out

Dairy Goats 3 (GA138)
• Managing health and parasites
• Genetics and reproduction
• Global role of goats

Showing the Way

Meat Goats

What you will do:
• Demonstrate good caretaking of the animals, land and other resources involved
• Spread knowledge about meat goat products and the meat goat industry

Resources for all Meat Goat project levels
4-H Meat Goat Advancement Guide
4-H Market Goat Project Guide
Meat Goat Helper’s Guide
Goat Resource Handbook


Meat Goats 1 (GA125)
• Meat goat breeds
• Caring for your kids
• Choosing the best feeds

Just Browsing

Meat Goats 2 (GA126)
• Breeding and genetic selection
• Feed rations
• Showing your goat

Get Growing With Meat Goats

Meat Goats 3 (GA127)
• Health management and parasites
• Marketing your animals
• Managing resources

Meating the Future

Health/Fitness (HF, BY)

Are you interested in exploring a wide variety of activities related to physical well being? Join us for bowling, golf or other sports and physical activities.

Physical Activity and Fitness

Bowling (HF711)
• Learn terminology and etiquette
• Learn bowling techniques and how to score

Lifetime Sports: Bowling

Golf (HF712)
• Learn terminology and etiquette
• Learn golf swings and shots

Lifetime Sports: Golf

More Health/Fitness projects on the next page.

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.

Legend:
= free resource = paid resource
Physical Activity in 4-H Clubs (HF774)
Does your club want to start a new physical activity program? Maybe your club group could form a running or volleyball project. Your club might form a line dancing project. The possibilities are endless! Sign up and get moving.

Bicycle (BY)
Learn about safe cycling, how to repair and maintain a bicycle, plan and participate in cycling activities and events, and have fun!

Resources for all Bicycle project levels
Bicycle Helper’s Guide
Bicycle - Don’t Get Stuck: Fix It DVD

Keeping Fit and Healthy
Explore self-care and safe living. You will learn about injury, sports nutrition, optimum performance and how to be physically active in a safe way.

First Aid (HF771)
• Learn about first aid for cuts, choking, sprains, strains and bruises
• Learn about first aid for nosebleeds, stings, bites, poisons, broken bones and burns
  First Aid in Action

Staying Healthy (HF772)
• Learn about personal hygiene
• Engage in physical activities and learn about nutrition
  Staying Healthy

Keeping Fit (HF773)
If you are already involved in a school or community athletic team, sport of other physical activity program (i.e., basketball, track, swimming, dance) sign up for this project! You will learn more about personal fitness, sports nutrition and safety.

Home Environment (HE)
Do you walk into a room and know exactly what colors and what furniture would look good in the space? How do you create a feeling of coziness in a family room? Being an interior designer is all about making a house a home. Develop a designer’s touch by navigating through four sections of this curriculum.

Move Across Missouri (MOVE) (HF775)
Wouldn’t it be great if you could get credit for all the activity in your life? Now you can! Whether you’re into weightlifting, hunting, dancing, soccer, rock climbing or even throwing darts, you can enjoy tracking minutes and earning points while you move! Awards and prizes are included. To learn more and get started, visit http://4h.missouri.edu/4hmove/main.

More Home Environment projects on the next page.
Home Environment 1 (HE471)
- Learn and apply basic design concepts to walls, windows and floors

Home Environment 2 (HE472)
- Explore how to design with style as you plan, select and care for furniture, fabrics and decorative items for a room

Home Environment 3 (HE473)
- Learn about accessories and adding personality and interest to a room

Home Environment 4 (HE474)
- Create a home that is healthy, energy efficient, and conserves natural resources

HORSES (HS)

Horseless Horse and Horse Knowledge (HS140) are for all who want to learn about horses, including those without their own horse or pony. Horse Riding (HS141) introduces basic riding skills and styles. Because a member's knowledge might be at a different level from his or her riding skills, a member may sign up for both units 140 and 141, and unit 140 will not be counted against his or her project total count.

What you will do:

- Discover the basics of horse behavior, breeds and safety
- Learn about acquiring, selecting and raising a horse
- Build a financial plan
- Learn basic riding and horsemanship skills

Resources for all Horseless Horse and Horse Knowledge project levels
- Horse Advancement Program
- Horse Project Helper’s Guide
- Horse Enrollment Form (Y1440)

More Horses projects on the next page.

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.

Legend:
- = free resource  = paid resource
Horseless Horse and Horse Knowledge (HS140)

Horseless horse project

Resources for all Horseless Horse project levels
Horseless Horse beginner project book

Horse 1
• Learn about horse behavior
• Discover basic horse safety
  Giddy Up and Go

Horse 2
• Equine anatomy
• Feeds and nutrition
  Heads, Heart and Hooves

Horse 3
• Genetics and reproduction
• Care and costs of horses
  Stable Relationships

Horse judging
American Quarter Horse Association  Competitive Horse Judging
Oklahoma State 4-H Horse Judging Guide

Horse knowledge
• Explore digestion, nutrients, feedstuffs, rationing, and poison plant identification to protect the health of your horse.
• Increase knowledge of horse reproduction and career options in the horse industry
• Learn the basics of caring for a horse, how to ride, and showmanship
  Ohio 4-H Horse Nutrition
  Ohio 4-H Equine Reproduction and Genetics
  Ohio 4-H Beginning Horse Management
  The 4-H Horse Project

Horse Riding (HS141)

Horse 4
• Tack and tools to work with horses
• Basic riding
  Riding the Range

Horse 5
• Horsemanship skills
• Getting ready to show
  Jumping to New Heights

Discipline Specific and Training Resources
4-H Dressage Guide from Ohio 4-H
4-H Learning to Jump from Ohio 4-H
4-H Trail Riding from Ohio 4-H
4-H Draft Horses from Ohio 4-H
4-H Horse Training: How to talk to your horse from Ohio 4-H
4-H Horse Safety and You: How to work with and around a horse safely from Ohio 4-H

HORTICULTURE (HO, LD)

Resources for all Horticulture project levels
Horticultural Advancement Guide

Flowers
Greenhouses, flower arrangements and flower beds — flowers can bring a smile to many faces. Enjoy activities and opportunities working with flowers inside and outside. Learn arranging, pest management and plant science. Whether you live in a high-rise apartment or have a large yard, this project has something fun for you.

Floriculture 1 (HO961)
• Planning a rainbow garden
• Learning the parts of a flower
• Transplanting plants
• Keeping plants healthy
  Floriculture Level A Guide

More Horticulture projects on the next page.
Floriculture 2 (HO962)
- Learning about perennials, house plants and starting seeds
- Planning a theme garden and indoor landscaping
- How to identify and control pests
- How to dry flowers and make potpourri
  Floriculture Level B Guide

Floriculture 3 (HO963)
- Develop planter gardens, take cuttings from plants, preserve flowers and create dried arrangements and terrariums
- Learn principles of design and the importance of soil pH

Floriculture 4 (HO964)
- Develop an all season garden and learn to force bulbs
- Learn the principles of design and the importance of soil pH
- Experience tissue cultures and floral science
- Explore greenhouse gardening, planning a floral business and create flower arrangements
  Floriculture Level D Guide

Gardening (fruits and vegetables)
Get outside and dig in the soil; you can grow your own fruit and vegetable garden with this project. Create rows of vegetables and fruit that you enjoy and that are good for you and your family. Learn basic gardening techniques, how to plan a garden and related career options and entrepreneurship opportunities.

Resources for all Gardening project levels
- Vegetable Planting Calendar
- Gardening Helper’s Group Activity Guide
- Gardening Exhibit Guide
- Additional resources can be found at http://extension.missouri.edu/lawngarden

Gardening 1 (HO971)
- Plan and plant a garden
- Learn what different plant parts do
  See Them Sprout!

Gardening 2 (HO972)
- Transplant plants into your garden
- Grow plants from plant parts
  Let’s Get Growing!

Gardening 3 (HO973)
- Learn about succession planting
- Find out about photosynthesis
- Identify pest damage
  Take Your Pick!

Gardening 4 (HO974)
- Use intercrop and double crop planting methods
- Identify plant diseases
  Growing Profits

Landscape Design
Resources for all Gardening project levels
- Grow a Beautiful Space — Youth Manual
- Grow a Beautiful Space — Leader’s Guide

Landscape Design 1 (LD975)
- Learn about careers in landscaping
- Use design principles in landscapes

Landscape Design 2 (LD976)
- Explore various characteristics of landscape plants
- Learn skills necessary to landscape professionals

Landscape Design 3 (LD977)
- Develop maps and drawings for landscape plans
- Learn skills necessary to landscape professionals
- Create a landscape portfolio

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.
KNITTING (KN)

Learn knitting techniques and tips! Many professions use techniques learned in knitting (think, surgeons); other professions use the concentration acquired (think, acting or engineering).

Knitting (KN331)
- Learn to make scarves, hats, mittens, socks, afghans, purses, pillows and more
  I Can’t Believe I’m Knitting (2006 edition)

LEADERSHIP (LD)

Life brings many situations where good leadership skills can make a difference: working on a group project in a class, being part of a team, finding yourself with people about to make a mistake, owning your own business or even being an elected leader. You’ll make a bigger difference by knowing how to make good decisions, build relationships, organize your life and plan for success.

Leadership 1 (LD271)
Target audience: Grades 3-5
- Communication
- Cooperation
- Resolving differences
  Step Up to Leadership - My Workbook
  Mentor Guide 1

Leadership 2 (LD272)
Target audience: Grades 6-8
- Lifelong leadership skills
- Cross-cultural leadership
- Leadership Environments
  Step Up To Leadership - My Journal & Mentor Guide 2
  Leadership Road Trip: Where Are You Going?

Leadership 3 (LD273)
- Planning and organizing
- Relationship building
- Group process
  Step Up To Leadership - My Portfolio
  Leadership Road Trip: Where Are You Going?

LIVESTOCK JUDGING (LJ)

What are the characteristics to look for in a prize food animal that yields the best products for our table? Or are you interested in gaining skills to select your market animal to exhibit at the fair? Learn to evaluate animals, judge them like a pro and justify your decision. Project enrollment is not required to participate in 4-H livestock judging contests at the state level.

Livestock Judging (LJ117)
- Judging Beef Cattle and Oral Reasons 101
- Judging Sheep and Oral Reasons 101
- Judging Swine and Oral Reasons 101
- Judging Meat Goats and Oral Reasons 101
- Judging Dairy Cattle — Giving Reasons

A list of state competitive events and resources is available on pages 63-66.

MEATS (ME)

There is nothing like delicious country-cured ham or bacon. Or what about the taste of barbecue just off the grill? Learn how to cure your own ham and/or bacon, identify different meat retail and wholesale cuts, select a quality meat product and then know how to prepare it for a meal. These hands-on activities and experiences will last you a lifetime.

NOTE: Use of Borax is NOT an approved practice for curing hams.
Country Cured Bacon (ME114)

Home Curing Bacon for a Mild Flavor (G2528)

Reminder: The State Fair offers an open Bacon Class #9 for youth under age 21 in the Agriculture Building.

Country Cured Hams (ME115)

How to Make a Country Ham
Country Ham Curing (G2526)

Meat Evaluation Project (ME116)

Pork Carcass Evaluation
Beef Carcass Evaluation

The Pork Checkoff and other commodity groups updated The Guide to Identifying Meat Cuts. It can be ordered by contacting the Pork Checkoff department at 515-223-2621.

Meat Judging Contest resources can be found at http://aggiemeat.tamu.edu.

OUTDOOR ADVENTURES (OA)

A 4-H project for those who like hiking and camping! Progress from day hikes to overnight camping trips, and then to extended backpacking expeditions as you hike through the three activity guides and the helper’s guide. Experiences relate to food, shelter, Leave No Trace ethics, safety, navigation, equipment and camp management.

Resources for all Outdoor project levels
Group Activity Helper’s Guide

Outdoor 1 (Hiking) (OA761)
- Explore hiking for a day
- Learn about clothing needs
- Learn how to pack a daypack
- Learn how to read topographic maps, and orienteering skills

Hiking Trails

Outdoor 2 (Camping) (OA762)
- Basics of camping including shelter selection
- Introduction to Leave No Trace camping skills
- Learn how to pack a daypack
- Learn outdoor cooking and environmental awareness and appreciation

Camping Adventures

Outdoor 3 (Backpacking) (OA763)
- Focus on being on the trail for extended periods of time
- Learn clothing needs, tent setup, using backcountry stoves, basic nutrition, menu planning for multi-day hikes, personal hygiene and basic first aid

Backpacking Expeditions

PETS (PE)

The Pets project provides positive opportunities for young people to develop the essential life skills of mastery, independence, generosity and belonging through their interest of pets. Learn how to raise a small animal or pet in a home, how to select the right small animal for your circumstances and environment, how to give urban pets proper housing, care and health, and how to show small pets.

Resources for all Pets project levels
Curriculum resources provide lessons, activities and information you can use to progress through advancement levels.

Pet Care Project Guide
Pet Helper’s Guide

More Pets projects on the next page.
Pets 1 (PE101)
- Choosing your pet
- Getting to know your pet
- Caring for your pet

Pet Pals

Pets 2 (PE102)
- Characteristics of your pet
- Keeping your pet healthy

Scurrying Ahead

Pets 3 (PE103)
- Pet reproduction
- Careers and leadership opportunities

Scaling the Heights

Guinea Pigs (Cavies)

In this project, members own and care for one or more guinea pigs. This is an excellent project for youth who live where they cannot keep larger animals. In this project, 4-H members learn about the feeding, management and record keeping involved with raising guinea pigs.

Guinea Pigs (Cavies) (PE104)
- Learn general care, history, anatomy, selection, housing and equipment, records
- Learn nutrition, health, show preparation, marketing and other aspects of care

4-H Cavy Advancement Program
Cavy Project — Leader Guide
Cavy Resource Handbook: A 4-H Guide to Guinea Pigs
Cavy Project and Record Book

PHOTOGRAPHY (PH)

Capture important moments, communicate your perspective and show how life appears through your lens with photography. Learn about cameras, lighting, and digital and film media so you can be ready when you find that great shot. Build skills you can use to excel in other areas of life as well and explore possible new careers.

Resources for all Photography project levels
Matte board Website: https://www.discountmatcutting.com
(no online ordering for this item) Contact Jose Corral, Diamond Die and Bevel Cutting jose@ddbcutting.com (224) 387-3200

Sleeves: http://www.clearbags.com 8 ¼” x 10 1.8” + flap, Crystal Clear Protecting Bags (B108SPC)

Photography 1 (PH351)
Learn photography basics such as:
- Equipment
- Proper lighting
- Creating good composition to build your skills as a photographer

Focus on Photography

Photography opportunity

Photo Corps is a team of 4-H’ers across Missouri who take photographs around an assigned theme and engage through social media as they strive to meet photographic challenges. The opportunity to apply for Photo Corps is offered periodically through an application process at the state level and is open to young photographers, ages 13 to 18, who have completed at least one year of 4-H Photography. Opportunities include exhibiting their work to a larger audience and meeting professionals in the field. See more at http://4h.missouri.edu/photocorps/main. The above photo was taken by Photo Corps member Summer Caton of the Ringen-Brushy 4-H Club

More Photography projects on the next page.
Photography 2 (PH352)
Advance your knowledge further with these skills:
• Depth of field
• Backlighting
• Rule of thirds
  Controlling the Image

Photography 3 (PH353)
• Learn more exciting techniques
• Learn when rules of photography can be broken, how to use color to your advantage
• Put together an attractive and interesting portfolio and learn how to exhibit your work professionally
  Mastering Photography

POULTRY (PO)
Identifying poultry parts, species and breeds, selection, exploring an egg, cooking an egg, feeding, handling, washing and showing are activities included in the 4-H poultry project. In the intermediate level you will learn how to read a feed tag, explore retail products, grade carcasses, select layers and manage poultry health. Advanced poultry members will develop leadership skills by planning a judging clinic, managing a flock, exploring careers, processing chickens, conducting poultry games and discussing values and ethics.

Make sure you own your poultry animal by the following weeks to be eligible to exhibit at the Missouri State Fair — Roasters 8-10 weeks; Broilers 6-8 weeks; Fryers 5-10 weeks. Check with your local University of Missouri Extension center for local requirements and dates.

To exhibit your livestock project at the Missouri State Fair, you must have completed the enrollment process in your county 4-H program, and have met all local criteria including compliance with the 4-H Show-Me Quality Assurance Policy.

Resources for all Poultry project levels
Poultry Advancement Program
Market Broiler Project
4-H Backyard Poultry Care: Member’s Guide and Record
4-H Turkey Project: Member’s Guide and Record
National 4-H Poultry Judging
Poultry Helper’s Group Activity Guide

Additional MU Extension publications are available at http://extension.missouri.edu/poultry

Poultry 1 (PO151)
• Selecting the right bird for you
• Learn about poultry product and production
  Scratching the Surface

Poultry 2 (PO152)
• Selecting and judging poultry
• Explore careers and industry
  Testing Your Wings

Poultry 3 (PO153)
• Meat science and food safety in poultry
• Raising poultry and genetics
  Flocking Together

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.
PUBLIC SPEAKING (PS)

4h.missouri.edu/public-speaking/projects

From sharing an important thought to nailing that first big job interview, public speaking skills are extremely important. Public speaking allows you to challenge yourself and succeed in developing communication skills, while having fun and building friendships. Although public speaking is among the most common of fears, every 4-H member can learn to do this well and even enjoy it!

Resources for all Public Speaking project levels
Downloadable PDFs available online at http://4h.missouri.edu/public-speaking/projects. See this page for more Public Speaking resources, as well as information on the Missouri Public Speaking Contest.

Public Speaking (PS242)
- Learn how to prepare and deliver speeches in front of crowds with confidence
- Explore how the pros build this skill
- Learn to handle various speaking situations
- Deliver different types of speeches, and resolve problems you may experience along the way

Building Public Speaking Skills
Communicating With PowerPoint
Extemporaneous Speaking
Finding Your Voice: Public Speaking

QUILTING (QU)

4h.missouri.edu/quilting/projects

Do you have a favorite quilt that someone special has made for you? Maybe it has been passed down from generation to generation. This project will teach you quilting techniques so you can create wonderful quilts and other useful, fun items.

Resources for all Quilting project levels
Quilt Quest Project: Beginning Basics
Quilt Quest Project: Quilt Quest CD

Quilting 1 (QU341)
- Beginners explore ideas and designs of quilts with squares and rectangles
  - Quilt Quest Project Block 1: Creative Corners

Quilting 2 (QU342)
- Make designs using basic triangles — half square, quarter square and equilateral triangles
  - Quilt Quest Project Block 2: Terrific Triangles

Quilting 3 (QU343)
- Learn more about fabrics and how to combine them into quilted items
  - Quilt Quest Project Block 3: Fantastic Fabrics

Quilting 4 (QU344)
- Explore ideas and designs for paper piecing using original, multiple small paper piecing patterns
  - Quilt Quest Project Block 4: Perfect Paper Piecing

Quilting 5 (QU345)
- Learn to use embroidery and many other ways to embellish your quilts
  - Quilt Quest Project Block 5: Elegant Embellishments

Quilting 6 (QU346)
- Try several projects, each using a different format for applique
  - Quilt Quest Project Block 6: Amazing Applique

RABBITS (RB)

4h.missouri.edu/rabbits/projects

Whether you see rabbits as soft and cuddly pets or a business opportunity, the rabbit project is flexible for your interest. In this project you’ll learn to identify parts, determine sex, check for disqualifications, practicing handling, trimming nails, showing and many other management practices.

For eligibility to exhibit at the Missouri State Fair, you must own your rabbits by the following times: Rabbits by June 1; Meat Pen by 5 to 10 weeks prior to show. Check with your local extension center for local requirements and dates.

More Rabbits projects on the next page.
To exhibit your livestock project at the Missouri State Fair, you must have completed the enrollment process in your county 4-H program, and have met all local criteria including compliance with the 4-H Show-Me Quality Assurance Policy.

Resources for all Rabbit project levels
- Rabbit Advancement Program
- Rabbit Helper’s Guide
- Rabbit Resource Handbook for Breeding, Market and Pet Rabbit Projects

Rabbits 1 (RB111)
- Caring for your rabbit
- Rabbit breeding and health
  What’s Hoppening? 3

Rabbits 2 (RB112)
- Breed characteristics
- Health care and disease prevention
  Making Tracks 3

Rabbits 3 (RB113)
- Breeding and genetics
- Showing your rabbits
  All Ears 3

Additional resources
- Commercial Rabbit Production Management Wheel MP911 3
- Rabbit Resource Handbook for Breeding, Market and Pet Rabbit Projects 3

ROBOTICS (RO)
4h.missouri.edu/robotics/projects

Exploring 4-H Robotics is an ideal way to introduce science, math, engineering and technology while teaching life skills. Through hands-on activities, the 4-H Robotics projects teach basic concepts related to robotic subsystems such as structure, power, sensors, control and programming. These concepts are the foundation for building robots and robotic subsystems from a variety of materials and packaged kits. 4-H Robotics has projects and resources for a wide variety of interests.

Robotics platforms

Junk Drawer Robotics
In each module of this project, you will learn about a different aspect of robotics, and design and build a robot. You will use your Robotics Youth Notebook to record your learning experiences, robotic designs and the data from your investigations. The Junk Drawer Robotics project has material kits available from the 4-H Mall.

Junk Drawer Robots 1 (RO881)
- Explore the design and function of robotic arms, hands and grippers
- Build a robotic arm that really moves
  Junk Drawer Robotics, Level 1: Give Robots a Hand 3
  4-H Robotics Youth Notebook

Junk Drawer Robots 2 (RO882)
- Allows you to design and build machines that roll, slide, draw or move underwater
- You will explore robot mobility — movement, power transfer and locomotion
  Junk Drawer Robotics, Level 2: Robots on the Move 3
  4-H Robotics Youth Notebook Junk Drawer Robotics 3
  Level 2 Facilitator Guide: Robots on the Move 3

More Robotics projects on the next page.

Legend:
3 = free resource 4 = paid resource
Junk Drawer Robots 3 (RO883)
• Learn about the connection between the mechanical and electronic elements of robots
• You will explore sensors, write programs, build circuits and design your own robot
  Junk Drawer Robotics, Level 3: Mechatronics A
  4-H Robotics Youth Notebook Junk Drawer Robotics A
  Level 3 Facilitator Guide: Mechatronics A

Robotics 1: With EV3 (RO884)
• Use the newest LEGO® technology to learn about what a robot is
• Explore robot mobility — movement, power transfer and locomotion
• Learn to build and program the LEGO® Mindstorm EV3
  Robotics 1: With EV3 (No leader curriculum)

Robotics 2: EV3N More (RO885)
• Learn more advanced robot configurations
• Take on programming challenges with activities in the book and instructional videos.
  The LEGO® Mindstorms EV3 robot constructed for Robotics 1 with EV3 is required
  Robotics 2: EV3N More (No leader curriculum)

Additional Robotics Platforms (RO886)

Youth Robotics Competition

Youth Robotics Competition Partners (RO887)
4-H is a partner with several youth robotics organizations for competitive opportunities for 4-H’ers. Each of the youth robotics competition organizations listed below recognize 4-H as a pathway to participation. 4-H robotics members and groups are encouraged to get involved in these competitions. This project is for groups who join and participate in the competitions they offer. Please visit each partnering organization for specific challenges, registration and competition dates. Some organizations offer grants and incentives for joining.
• FIRST — http://www.firstinspires.org/
• VEX — http://www.vexrobotics.com/competition
• RoboFest — http://www.robofest.net/
• BotBall — http://www.botball.org/
• SuGO Bots — http://www.sugobot.com/
• BEST — http://www.bestinc.org/
• SeaPerch — http://www.seaperch.org/

SELF-DETERMINED (SD)
4h.missouri.edu/self-determined/projects

A self-determined project allows members freedom to design a project that is not currently offered. Members enrolling in the Self-determined project are responsible for identifying their project resources, filling out the Y951 form and consulting with their county 4-H staff person. 4-H staff will be able to add the project to the 4HOnline enrollment system, once approved.

More Self-determined projects on the next page.
Self-determined (Citizenship, Leadership and Communication) (SD950)

- Civic Engagement
- Community/Volunteer Service
- Leadership and Personal Development
- Communications and Expressive Arts

Self-determined (Science) (SD952)

- Biological Sciences
- Technology and Engineering
- Physical Sciences, Environmental Education/Earth Sciences
- Ag in the Classroom
- Animals
- Plant Science

Self-determined (Healthy Living) (SD951)

- Foods and Nutrition
- Health
- Personal Safety

Choose Your Own Direction (Y951)

Additional resources

SHEEP (SH)
4h.missouri.edu/sheep/projects

The sheep project introduces you to a wide variety of fun and challenging activities including identifying parts of a sheep, selecting a project lamb, preparing for lambing season, identification of lamb meat products and feeding and showing sheep. The realistic model lamb made from the Lamb Pattern can be docked, have its navel treated, be castrated, be treated for entropion, be tubed and even have its temperature taken. This is a great project to learn many skills that will last a lifetime! The lamb pattern is available online at http://4h.missouri.edu/sheep/projects.

Make sure you own and manage your market lambs by June 1 and your breeding animals by July 1 to be eligible to exhibit at the Missouri State Fair. Check with your local University of Missouri Extension center for local requirements and dates.

To exhibit your livestock project at the Missouri State Fair, you must have completed the enrollment process in your county 4-H program, and have met all local criteria including compliance with the 4-H Show-Me Quality Assurance Policy.

Resources for all Sheep project levels
Meat Animal Advancement Program
4-H Market lamb project Guide
Sheep Resource Handbook for market and Breeding Projects
Sheep Helper’s Guide

Sheep 1 (SH161)
- Selecting your project lamb
- Learn about lamb products beyond wool and meat
  Rams, Lambs and You

Sheep 2 (SH162)
- Care and nutritional needs of your animals
- Creating a plan for the health of your project
  Shear Delight

Sheep 3 (SH163)
- Starting your flock, breeding and genetics
- Marketing your project
  Leading the Flock

Use Y620, 4-H Project Record for all projects. Find curriculum resources on each project’s webpage. Look for the URL listed in the section headings.

Legend:
[ ] = free resource  [ ] = paid resource

4h.missouri.edu
SHOOTING SPORTS (SS)

Breaking clays, punching paper, busting caps, flinging arrows and counting X’s are all part of the 4-H Shooting Sports project. Safety first — but lots of fun! The Shooting Sports project includes many options for 4-H members. You will learn safe gun handling skills and sound fundamentals of shooting under the guidance of caring and knowledgeable adult volunteers.

4-H Shooting Sports is a unique 4-H project in that there are social issues and concerns with the Shooting Sports project that other projects do not deal with. Because of this uniqueness, Missouri 4-H has developed some special guidelines and policies for the Shooting Sports projects. 4-H members, parents and leaders are responsible to understand and follow these policies.

Leader information
A 4-H member may only be enrolled in a 4-H Shooting Sports project if it is led by a certified 4-H Shooting Sports volunteer. There is NO exception to this policy for a parent working with his or her own child. Only a certified 4-H Shooting Sports volunteer may lead any 4-H member in a 4-H Shooting Sports project.

4-H Leader Certification Workshops are conducted twice annually by a team of state 4-H instructors, usually a weekend in Spring and a weekend in Fall. Contact your 4-H staff about these leader workshops. Leader materials are distributed only at the leader workshops.

Project completion hours: Each shooting sports discipline/project number requires a minimum of 10 hours of instruction and/or practice under the direction of a 4-H certified leader.

Please note that these are stand-alone disciplines, and most Shooting Sports projects are open to participants age 8 and older unless otherwise noted in the description.

*Ages for the Shooting Sports project are based on 4-H age (age on Dec. 31 of the current program year).

Shooting Sports Safety (SS740)

Archery (SS741)

• Learn how to tune out all distractions, while shooting either a compound or recurve bow; by focusing on form and release, for either traditional or Olympic style shooting, to build self-esteem in a fun and rewarding way.

Air Rifle (BB and/or Pellet) (SS742)

• Experience the Standard Air Rifle along with the Aperture Air Rifle while learning about target diversity in a standing, prone and kneeling position 10 meters (33 feet.) from the target.

Smallbore Rifle (.22 cal.) (SS743)

• Learn about breathing techniques, sight picture and sight alignment, along with trigger control; while building a comfortable and stable standing, kneeling, sitting and prone position.

More Shooting Sports projects on the next page.
Safety requirements

✔ All 4-H members wishing to enroll in a Shooting Sports project (SS741-SS750) for the first time must complete six hours of instruction in shooting sports safety. Young people are encouraged to enroll in a shooting sports discipline project (SS741-SS750) during the same year. The SS740 project does not count against the project limitation.

✔ Procedure for the SS740 Shooting Sports Safety project:
  • The project should be completed in a short time period — in two or three meetings within a week.
  • Local certified 4-H Shooting Sports volunteers present the six hours of safety instruction.
  • All shooting disciplines of the 4-H Shooting Sports program are to be covered in the six hours of safety.
  • Instructors must use the draft 4-H Shooting Sports Safety Curriculum as the core curriculum, available at www.4h.missouri.edu
  • The SS740 Shooting Sports Safety course must be completed prior to the youth participating in a discipline project (SS741-SS749) but needs to be completed only once.
  • It is strongly suggested that all members repeat the safety instruction a second year.

Air Pistol (SS744)
• Beginning from a seated and supported position, youth will progress to a two-handed standing position and finally to a one-handed International style shooting position.

Shotgun (SS745)
• Learn about teamwork while busting clays in trap, skeet and sporting clays.

Age requirements: 11 years of age and older*

*Ages for the Shooting Sports project are based on 4-H age (age on Dec. 31 of the current program year).

Smallbore Pistol (SS747)
• Learn basic shooting skills and utilize them in hunting small game; or for competition on paper to steel targets ranging from 25 to 100 yards.

Prerequisites:
• 14 years and older*
• Previously completed 10 hours of instruction and practice of SS744 Air Pistol project or youth at least 16 years old can still participate without taking SS744 if they pass a competency test, written test and skill demonstration administered by a certified pistol instructor
• Written parental permission

*Muzzeloading (SS748)
• Experience how to properly load and fire a black powder firearm when aiming at a variety of target types.

Prerequisites:
• 11 years of age and older*
• Recommend at least one year participation in SS742 Air Rifle, or 743 Smallbore Rifle.

*Marsch and Outdoor Skills (SS749)
This project has no association with the Missouri Department of Conservation Hunter Education class. It is a 4-H project designed for those members interested in hunting, game or non-game wildlife, observation and concealment skills, the relationship of people and wildlife, and other hunting and wildlife related subjects. Requires leader certification.

Please note that this project has no association with the Missouri Department of Conservation Hunter Education class.

More Shooting Sports projects on the next page.
Western Heritage and Cowboy Shooting (SS750)

Leaders: In order to offer this program, volunteer leaders must be trained and certified by 4-H. The western heritage training and certification workshop is conducted separately from the regular workshop and is offered only once a year.

Check with your local MU Extension center to see if it is offered in your county — only enroll if your county is approved. This project is not eligible for self-determination.

Purpose: To provide an avenue for 4-H members to experience the lifestyles and cultures of the Old West through a living history approach to learning.

Participation guidelines: 4-H members 9 to 10 years old may participate with rimfire rifle only. They also must have previously completed at least one year of 4-H Air Rifle, Air Pistol or Smallbore Rifle.

Members 11 to 13 years old will participate with all three firearms (rifle, revolver, shotgun) but are restricted to rimfire rifle and revolver. They also must have previously completed at least one year of 4-H Air Rifle, Air Pistol or Smallbore Rifle.

Members 14 to 18 years old will participate with all three firearms (rifle, revolver, shotgun) with either central-fire or rimfire firearms. Previous completion of at least one year of 4-H Air Rifle, Air Pistol, Smallbore Rifle or Smallbore Pistol is preferred. Ask the project leader for possible exceptions.

Further description, resources and curriculum are found at [http://4h.missouri.edu/shooting-sports-events/western-heritage](http://4h.missouri.edu/shooting-sports-events/western-heritage).

SPORTFISHING (SF)

Fishing and MORE! Discover tiny creatures living in Missouri streams and use them to determine water quality. Improve your casting skills. Learn to tie better knots and special purpose knots. Make your own in-line spinner, paint your own jig head or tie a marabou jig or Wooly Buggers fly. Understand the “why” of fishing seasons, length limits, daily creel limits and other regulations. Grab your favorite rod and reel and go to the lake, pond, river or stream and land a monster or catch a “mess.” Then clean ’em and cook ’em.

Important note for leaders:

Because the 4-H Sportfishing program is designed to be much more than a few hours with a fishing pole, volunteer leaders are required to complete basic Sportfishing training and orientation. An extensive set of resources has been assembled for volunteers and must be used. The Sportfishing leader must be committed to include all four content areas in the project: Angling skills, tackle craft, aquatic ecology, and people and fish. Details on how to become an approved 4-H Sportfishing volunteer leader can be found at [http://4h.missouri.edu/sportfishing/volunteers](http://4h.missouri.edu/sportfishing/volunteers). Click on the link at left for “Sportfishing Leader Module.”

Steps to leader approval:

1. Complete the Sportfishing Leader Application and send it with the $35 fee to the state 4-H office.
2. The state coordinator will send you the Sportfishing Resource Manual (includes all member materials and leader resources).
4. Complete the leader qualification test.
5. Read and sign the Memorandum of Agreement (MOA).
6. Send test and MOA to the state coordinator.
7. Test is graded (90 percent is passing).
8. The state coordinator will sign the MOA and return a copy for your records.
9. The state coordinator will notify you and your local 4-H staff person with an official letter of approval.

All leader materials and resources are distributed to the leader after completing the sportfishing leader application.

Please check the Sportfishing web page on a regular basis for developments.
Resources for all Sportfishing projects
Fishing Helper’s Guide Digital Download ▶
Introduction to Fishing ▶
Introduction to Missouri Fishes ▶

Sportfishing 1 (SF725)
• Tie knots, cast to a target, rig various lines, select tackle, identify where fish are, identify fish and internal and external fish parts.
  Take the Bait! ▶

Sportfishing 2 (SF726)
• Cast using a spinning rod and fly rod and bait casting reel, practice responsible citizenship, research fishing regulations, decorate a lure, sew a fly wallet, tie an artificial fly & test a water sample.
  Reel In the Fun ▶

Sportfishing 3 (SF727)
Target audience: Grades 9-12
• Youth develop their leadership and fishing skills as they take a friend fishing, demonstrate how to disassemble and reassemble a fishing reel, design and conduct a sportfishing skillathon, make artificial flies, design and craft a lure, customize tackle, build and use a kick net, respond to ethical situations, and interview a professional fisherman.
  Cast into the Future ▶

SWINE (SW)
4h.missouri.edu/swine/projects

Enjoy learning the different breeds, swine body parts, selection, exploring the digestive system, exploring swine diseases, identification of the different meat products and many more exciting things in the swine industry. Hands-on activities including practicing fitting and showing swine, managing baby pigs, balancing a ration and designing a swine operation. The baby pig made from the pig pattern can be used to practice ear notching, castrating, docking, injecting, clipping needle teeth and many more swine management activities. The pig pattern is available online at http://4h.missouri.edu/swine/projects.

Make sure you own and are managing your swine animals by the following dates to be eligible for the Missouri State Fair: Breeding gilts 90 days prior to show; breeding boars since farrowing; market hogs 90 days prior to show. Check with your local University of Missouri Extension center for local requirements and dates.

To exhibit your livestock project at the Missouri State Fair, you must have completed the enrollment process in your county 4-H program, and have met all local criteria including compliance with the 4-H Show-Me Quality Assurance Policy.

Resources for all Swine project levels
Meat Animal Advancement Program ▶
4-H Market Swine Project Guide ▶
Swine Resource Handbook for Market and Breeding Projects ▶
Exploring Swine Health and Husbandry for project leaders ▶
Swine Helper’s Guide ▶

More Swine projects on the next page.
Swine 1 (SW181)
- Learn breeds and hog parts
- Create a budget and management plan
  The Incredible Pig

Swine 2 (SW182)
- Judging on foot and rail
- Exploring diseases and parasites
- Digestive health and feeding
  Putting the Oink in Pig

Swine 3 (SW183)
- Plan your breeding program
- Balancing rations for different needs
- Careers in the pork industry
  Going Whole Hog

THEATRE ARTS (TA)
Learn about the fascinating world of make-believe. Create sound effects, make puppets and perform a skit. Try your hand at improvisation, create disguises and design costumes. Sound interesting? Then cast yourself into Theatre Arts!

Each level of this curriculum builds on the previous level. Youth will practice and learn aspects of:
- Communication
- Character Development
- Play Development
- Play Production
- Theatre as projected Play

VETERINARY SCIENCE (VS)
A natural compassion for animals and an interest in science is what leads most veterinarians into their field. Learn the role a veterinarian plays in practicing animal and public health while participating in many hands-on activities. These activities will help you learn about the different equipment used by veterinarians, diseases and health problems, and career opportunities as a veterinarian or volunteer.

Resources for all Veterinary Science project levels
Veterinary Science 1–5 Group Facilitator Guides
Keeping Your 4-H Market Animals Healthy
Veterinary Science: Leaders Guide

Target audience: Grades 9-12

More Veterinary Science projects on the next page.
Veterinary Science 1 (VS191)
• Introduction to the fundamentals of veterinary science
• Learn what is “normal” and “abnormal” in regards to animal health
  From Airedale to Zebras
  The Normal Animal
Veterinary Science 2 (VS192)
• Explore the field of animal disease

WELDING (WE)

*Ever wonder how some things are held together? From cars to buildings to many other items, welding has made it possible.* In this project you will learn simple welding skills such as how to identify welding equipment, strike an arc and run a bead.

Wildlife Conservation 1 (WI720)
• Learn about the history of wildlife conservation
• Explore the values of wildlife to humans
  The Worth of Wild Roots
Wildlife Conservation 2 (WI721)
• Learn about wildlife habitats
• Explore wildlife communities and ecosystems
  Living Wild in an Ecosystem

Wildlife Conservation 3 (WI722)
• Learn about the interface between people and wildlife
• Explore why and how we manage wildlife
  Managing in a World With You and Me

Supplemental project literature for young people
Butterfly Gardening and Conservation
Missouri Birds of Prey Packet
Woodworking for Wildlife
Native Plants for Landscape
Feeding Backyard Birds
Introduction to Missouri’s Fur-bearers
Greater Prairie Chickens

Online resources
Missouri 4-H WHEP Wildlife Project: [http://4h.missouri.edu/whep/main](http://4h.missouri.edu/whep/main)
Missouri Department of Conservation: [http://mdc.mo.gov/discover-nature](http://mdc.mo.gov/discover-nature)

More Wildlife projects on the next page.
Supplemental project literature for leaders
Wildlife Management for Missouri Landowners
Missouri Prairie Birds
Missouri Game Birds

4-H Wildlife Habitat Education Program
The 4-H Wildlife Habitat Education Program (WHEP) is a
contest-based hands-on environmental education program.
Members study the manual and then test their wildlife
knowledge against other youth at the state WHEP contest
in April. The top four senior 4-H’ers will form a team to
represent Missouri 4-H at the national WHEP contest. This
program will help young people learn
• wildlife terms and concepts
• wildlife habitat requirements for different species
• wildlife habitat management practices
• to evaluate the quality of wildlife habitats

Incorporating WHEP concepts and activities into your 4-H
Wildlife project will enhance your project experience.

Missouri 4-H WHEP page:
http://4h.missouri.edu/whep/main
GROUP LEARNING OPPORTUNITIES

Designed for clubs and groups of young people

Missouri 4-H has learning opportunities to meet the needs and interests of almost any youth group. Missouri 4-H programs are educational, fun, action-oriented and provide a variety of experiences that can be adapted for different settings. Typical 4-H settings include school classrooms, after-school programs, clubs and camps. The following learning opportunities are specifically designed for groups.

Citizenship and Leadership

Service-Learning (Citizenship) (LO12)
Give back! Being a good citizen involves showing generosity and strengthening your community through service. Learn how to plan and carry out a service project with a group. Set a learning goal, work together to achieve it, think critically and reflect on how your service changes you, improves the lives of others, and influences your community and world.
http://4h.missouri.edu/service/main

Character (Citizenship) (LO13)
Learn positive character traits such as trustworthiness, fairness, respect, caring, responsibility, and citizenship, and how they affect where you go and how far you go in life. The project is based on CHARACTER COUNTS™ from the Josephson Institute on Ethics. http://4h.missouri.edu/showmecounts

Public Adventures (Citizenship) (LO211)
Ready to go on a public adventure? Learn what city and county government officials do. Investigate a community issue, explore jobs of governing officials, see how local decisions get made and problems are solved. Plan and take action on an issue or topic you care about in your community.
(See Citizenship project for curriculum/order info)
http://4h.missouri.edu/citizenship/projects

Youth-Adult Partnerships (Citizenship) (LO215)
Grab a partner! Youth and adults come together to share leadership for a group effort. Plan, implement, and evaluate a trip, community program, or special event. Discover and appreciate the strengths of others, build teamwork, work in diverse groups, and learn how getting things done is better together.
http://4h.missouri.edu/youthadult/main

Entrepreneurship (Citizenship) (LO441)
Start your own business! Join a team of young executives in learning how to launch and run a small business. Grasp how entrepreneurs find good ideas and get them off the ground. Build business skills to work more effectively as a team. Plan a group fundraising project. Investigate options, see business opportunities, find a bright idea, make a plan, and go for it.
(See Entrepreneurship project for curriculum/order info)
http://4h.missouri.edu/entrepreneur/main

Leader resources
Missouri 4-H learning opportunities are defined as group projects selected and carried out by all club or group members.
Activity leaders can request three copies of available publications. Most 4-H publications are free. Others are available for a small fee.

Legend:

- free resource
- paid resource
Career Explorations (Citizenship) (LO400)
A fulfilling career awaits you. Learn how to prepare for a job path that interests you. Decide what kinds of work are a good match for your talents and abilities. Discover choices for education and training after high school, and what they cost. Investigate salaries, benefits, and careers in demand. Create a career portfolio and learn how job shadowing and volunteer work can take you on the path to your chosen career. For ages 14-19.
Build Your Future Facilitator Guide
Build Your Future Youth Notebook
(See Career Explorations project for curriculum/order info)

4-H Global Education (Citizenship) (LO36)
Do you ever wonder what kids from other cultures do for fun? What do they eat? What language do they speak? In this project you will have the opportunity to learn about other cultures, similarities and differences among families around the world. It will also prepare you for a possible exchange experience in the future. See page 69 for additional opportunities.
Leader's Guide, Seeing i2i $
Participant's Guide, Seeing i2i $
Got the Travel bug? Check out international opportunities at 4h.missouri.edu/global-ed/main

Healthy Living

Physical Activity in 4-H Clubs (HF774)
Does your club want to start a new physical activity program? Maybe your group could form a volleyball, running or line dancing project. The possibilities are endless! Sign up and get moving.
For more ideas, resources and programs: http://4h.missouri.edu/health-fitness/main

Healthy Lifestyles (Healthy Living) (LO33)
As the saying goes, “When you have your health, you have everything!” Health is the fourth “H” on the 4-H logo and a common topic for young people today. Nutrition, physical fitness and emotional well-being are just some of the health issues that contribute to healthy lifestyles for all individuals. The following resources provide fun activities that promote health for young people — helping them learn about healthy lifestyles, learn about themselves and have fun!

The Dating Mystery...and All That Relationship Stuff
Help young people explore healthy relationships and positive ways to get along with others. This resource uses popular movies to help young people discover and then discuss confusing relationship issues. This activity is designed for young people ages 13 and older.

Steppin’ Out: Fitness Walking
Walking offers a simple yet healthful approach to physical activity — one that almost anyone can achieve. Help young people practice healthy behaviors by walking, solo or with a group. This resource provides walking information and activities designed to inspire healthy behavior!

Download a copy of these resources: http://4h.missouri.edu/health-fitness/healthylife

Recreation and Leisure (Healthy Living) (LO44)
Every club meeting should include games, songs and other activities in drama, music or sports.

LG 583 Recreation Leader Handbook
LG 585 Social Recreation Leadership
4-H Teen Community Emergency Response Teams (CERT) (Healthy Living) (LO210)

Tornadoes, floods, earthquakes, ice storms — disasters happen. In the case of a widespread disaster, professional emergency staff will not be able to respond to every citizen's needs. How can you learn the skills that will be needed before, during and after a disaster? Take the 4-H Teen CERT Training! This class covers basic, critical skills needed to prepare for and protect yourself, your family, your friends and your community in the event of a disaster. 4-H members and volunteers will work with youth staff and local emergency management agencies to plan and conduct the CERT training. For many communities, this program is the beginning of a youth-adult partnership for ongoing youth participation in community emergency response planning and training. Teen CERT teams will learn all the skills taught in the federal CERT program, be introduced to many career opportunities within the emergency response field and help their community be prepared.

4-H Teen CERT covers the following topics:

- Disasters, disaster preparedness and mitigation
- Light search and rescue
- Disaster first-aid
- Emotional first-aid
- Disaster teamwork
- Disaster communications
- Animals in disasters
- Technology in disaster preparation


Contact your local 4-H office or local emergency management agency: [http://citizencorps.gov/](http://citizencorps.gov/)

4-H Move Across Missouri (MOVE) (Healthy Lifestyles) (LO775)

Move Across Missouri promotes physical activity. MOVE encourages young people to engage in physical activities they enjoy from a broad range of possibilities such as, walking, biking, running, swimming, dance, taekwondo, gardening and more. Young people and their families can “log” the number of miles they accumulate throughout the year and during the competitive component of the MOVE program. 4-H members can enroll in MOVE as individuals or as a part of a team. A team may consist of a family or members of a 4-H club or group. MOVE awards are provided.

MyActivity Log

For more information:
[http://4h.missouri.edu/programs/move](http://4h.missouri.edu/programs/move)

Eating from the Garden (Healthy Living) (LO972)

Eating from the Garden is a nutrition and gardening curriculum for fourth- and fifth-grade students. Research-based information guides students through nutrition and gardening activities that increase

- consumption of fruits and vegetables,
- healthier food choices,
- gardening knowledge and
- physical activity.

Eating from the Garden can be used in a group setting, such as a school classroom, after-school program or community center program. It includes a variety of fun nutrition and gardening activities. Each lesson plan has measurable learning objectives and a set of core educational activities. Additional activities are included if you have more time to teach nutrition or gardening in your setting. Each lesson includes a newsletter for students to take home. Lessons have been cross-referenced with the Missouri Learning Standards.

Eating from the Garden is designed to be taught biweekly in the spring and fall, and monthly during the winter months. Lessons are based on a one-hour class with additional activities for longer time periods. Alternating nutrition and gardening lessons allow more time for fruit and vegetable preparations and additional activities in the garden. To match school schedules, one garden is planted in the fall and one in the spring.
Science

Embryology, Grades 2–5 (Science) (LO15)
This curriculum brings action and experience to the classroom, using a still-air incubator. Students observe the development of the chick in the egg, hatching and post-hatch care.

**Show-Me Standards Goals 1, 3; Content — Science; 3, 4, 7.**


Embryology, Grades 6–8 (Science) (LO16)
This curriculum provides you with background information and exciting experiential life science activities for use in your classroom. Each activity is grade-level appropriate and has been correlated to National Science Education Standards.

**Show-Me Standards Goals 1, 3; Content — Science; 3, 4, 7.**

Embryology: Experiments in Poultry Science: Helper’s Guide Advanced Grades 6-8

Community Mapping (Science) (LO17)
Community Mapping is a service-learning activity involving young people, citizens, community professionals and community decision-makers who work together to learn and use geospatial tools and data to address community and environmental issues. Geospatial tools are Global Positioning Systems (GPS), Geographic Information Systems (GIS) and Remote Sensing. The community mapping process can be used for a wide range of service-learning projects.

For more information:
http://4h.missouri.edu/geospatial/communitymap

4-H Million Tree Project (Science) (LO931)
Participate in the 4-H Million Tree Project, an ambitious project conceived after a 4-H member decided to do something to combat global climate change. Here is a 4-H service project that improves the quality of our environment!

**The Vision:** One million new trees planted by 4-H members across the United States and Canada, which will bring many benefits.

Any 4-H member or group can participate, but should officially sign up and report your tree plantings.

Visit the national 4-H Million Tree Project at http://4hmilliontrees.org to sign up.

Check out the Missouri 4-H Million Trees web page (http://4h.missouri.edu/programs/milliontrees) for tree planting tips, Missouri publications and local information.

Garden ‘n Grow (Science) (LO971)
The University of Missouri Extension’s Garden ‘n Grow Program is a volunteer gardening program designed to educate young people about horticulture. Young people ages 9-13 will learn not only about gardening, but also science, math, social studies, language arts — and have fun while learning! Each participant will plant and harvest his or her vegetables for home use and donation to the local food bank. The goals of this program are to teach young gardeners the pleasures of being outdoors and instill in them the importance of helping others. Garden ‘n Grow participants will develop a sense of self, usefulness and responsibility as they successfully contribute to society.

For more information, contact David Trinklein, University of Missouri Division of Plant Sciences, at 573-882-7511 or trinkleind@missouri.edu, or go to http://plantsci.missouri.edu/gng.
The Missouri 4-H Foundation maximizes 4-H youth development through resource acquisition and management.

Since 1949, the Missouri 4-H Foundation has partnered with the Missouri 4-H Center for Youth Development to expand and enhance existing 4-H programs and to create new opportunities for Missouri 4-H members. State and National 4-H Congress, volunteer leader training, community service grants, leadership development, public speaking activities, 4-H member incentives and college scholarships are but a few of the ways the Foundation supports program efforts and ensures a sound financial future for tomorrow’s 4-H members.

Join a growing number of 4-H alumni, families, friends and corporate partners who show their support for the future of 4-H by contributing to the Missouri 4-H Foundation.

You can support the Missouri 4-H program through

• a gift to the Missouri 4-H Foundation Annual Fund to meet the greatest needs of the Missouri 4-H program,
• a gift to support your most cherished program,
• an annual or endowed scholarship in your family name or in the name of someone you wish to honor, and
• a gift through your will or trust.

A tribute or memorial is a wonderful way to honor someone you care about.

A gift to the Kids Helping Kids program will provide financial relief to Missouri 4-H members and their families who have suffered through family medical emergencies, natural disasters or fire.

For those who prefer the convenience of making a credit card gift, the Missouri 4-H Foundation accepts VISA, MasterCard, American Express and Discover. Credit card gifts may be made by calling 1-800-642-8041 or online at http://4h.missouri.edu/foundation.

The Missouri 4-H Foundation provides financial support for unique opportunities as 4-H youth leaders explore Missouri government, job-shadow legislators and learn from agricultural industry experts. Pictured are the State 4-H Council members for 2018–19.

Extend your support for 4-H by participating in the Clover Club

Alumni, friends and Missouri 4-H families can demonstrate their commitment to Missouri 4-H by participating in the Clover Club. For example, if you plan to make a pledge of $100 this year, you can now extend that commitment by pledging $100 to Missouri 4-H over a period of three or more years. The Missouri 4-H Foundation will mail you a pledge reminder each year, or at your request, until your pledge is fulfilled.

To make a multi-year commitment of support to the Missouri 4-H Foundation, call us at 1-800-642-8041 or email us at 4hfoundation@missouri.edu.

Visit the Missouri 4-H Foundation on Facebook.
### MISSOURI 4-H FOUNDATION SCHOLARSHIPS

Applicants must be current or former 4-H members planning to enroll in the fall of the current year. Please review the chart below and on the next page for details regarding each scholarship. Applications are also available online at [http://4h.missouri.edu](http://4h.missouri.edu) after Jan. 1. Applications are due in the state 4-H office on March 1.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number</th>
<th>Amount</th>
<th>Year</th>
<th>Criteria</th>
<th>County preference order</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-H LIFE Scholarship</td>
<td>3</td>
<td>$500.00</td>
<td>Freshman</td>
<td>Applicants must be a participant or alumni of the MU Extension sponsored 4-H LIFE (Living Interactive Family Education) program and be planning to enroll or be enrolled as an undergraduate at an accredited college or university, community college, technical or trade school. The scholarship recipient is not limited to Missouri schools.</td>
<td>Statewide</td>
</tr>
<tr>
<td>E.C. Adams Memorial 4-H Scholarship</td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at an accredited Missouri college, university, technical or trade school.</td>
<td>Statewide</td>
</tr>
<tr>
<td>Edna and James Burch Memorial 4-H Scholarship</td>
<td>5</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at any accredited two- or four-year college or university in the state of Missouri. Scholarship is funded by raffle proceeds from 4-H Day with the Cardinals.</td>
<td>Statewide</td>
</tr>
<tr>
<td>4-H Day with the St. Louis Cardinals Scholarship</td>
<td>4</td>
<td>$500</td>
<td>Freshman</td>
<td>Applicants must be planning to enroll, or are enrolled, as an undergraduate at an accredited college or university. Scholarship selection will be based on 60% financial need, 30% leadership exhibited and school goals defined, and 10% career goals. Candidates must submit an essay describing their education and career goals.</td>
<td>1. 4-H Youth Futures Member 2. Applicants from a rural area 3. Applicants from an urban area</td>
</tr>
<tr>
<td>Beverly Coberly 4-H Youth Futures Scholarship</td>
<td>1</td>
<td>$500</td>
<td>Freshman</td>
<td>Students must attend a PUBLIC Missouri school. Must be applied toward a course of study at any accredited college or university.</td>
<td>Statewide</td>
</tr>
<tr>
<td>Terry Cole Memorial 4-H Scholarship</td>
<td>1</td>
<td>$500</td>
<td>Freshman</td>
<td>Must be applied toward a Missouri university, college, community college or trade school.</td>
<td>1. Moniteau County 2. Adjoining counties</td>
</tr>
<tr>
<td>Cecil and Bina Davis 4-H Scholarship</td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Students must attend a PUBLIC Missouri school. Must be applied toward a course of study at an accredited college or university.</td>
<td>1. Henry or Harrison counties 2. Contiguous counties</td>
</tr>
<tr>
<td>Janelle Downing Memorial 4-H Scholarship</td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Applicants must major in Veterinary Medicine/Pre-Veterinary Medicine or Animal Science. Preference is given to applicants planning to enroll as a freshman at the University of Missouri College of Agriculture, Food and Natural Resources. If no suitable applicant is found, consideration will be given to applicants enrolling at an accredited public, four-year college or university.</td>
<td>Statewide</td>
</tr>
<tr>
<td>Dennis E. Gallup 4-H Memorial Scholarship</td>
<td>6</td>
<td>$2,500</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at an accredited MISSOURI college, university, technical or trade school (two- or four-year institution). Scholarship selection will be based on 50% 4-H achievement in leadership, citizenship, community service and projects; 40% financial need; and 10% work/career goals.</td>
<td>Statewide</td>
</tr>
<tr>
<td>Goppert Foundation 4-H Scholarship</td>
<td>3</td>
<td>1 each: $2,500</td>
<td>Freshman</td>
<td>Must be a CURRENT 4-H member maintaining a minimum 2.75 GPA. Must be applied toward a course of study at an accredited college, university, technical or trade school. Scholarship selection based on 50% 4-H achievement, 40% financial need and 10% on work or career goals.</td>
<td>Must reside in one of the following counties: Carroll, Cass, Clay, Clinton, Jackson, Johnson, Lafayette, Pettis, Ray or Saline.</td>
</tr>
<tr>
<td>Harrington Family 4-H Youth Futures Scholarship add a line</td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Applicants must have been a participant in the MU Extension sponsored 4-H Youth Futures: College Within Reach program and be planning to enroll or enrolled as an undergraduate at an accredited college or university. The recipient is not limited to Missouri schools. Scholarship selection will be based on 60% financial need, 30% 4-H achievement in leadership, citizenship, community service and 10% Career Goals.</td>
<td>Statewide</td>
</tr>
<tr>
<td>B.W. Harrison Memorial 4-H Scholarship</td>
<td>2</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at an accredited Missouri college, university, technical or trade school (two- or four-year institution).</td>
<td>Preference is given to applicants from the Southeast region</td>
</tr>
<tr>
<td>Don and Melva Henderson 4-H Scholarship</td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at an accredited college, university, or technical or trade school, or community college. Preference is given to a current or former 4-H youth who demonstrates entrepreneurial abilities and wishes to continue entrepreneurial pursuits in his or her chosen career path.</td>
<td>Statewide</td>
</tr>
<tr>
<td>Name</td>
<td>Number</td>
<td>Amount</td>
<td>Year</td>
<td>Criteria</td>
<td>County preference order</td>
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</tr>
<tr>
<td><strong>Jackson County 4-H Foundation Scholarship</strong></td>
<td>11</td>
<td>$1,000</td>
<td>Freshman (renewable)</td>
<td>Must be applied toward a course of study at an accredited college, university, technical or trade school (two- or four-year institution). Must be a current and past Jackson County 4-H member for three consecutive years. Recipients are encouraged to complete an internship or perform volunteer service, preferably with the Jackson County 4-H program each awarded year of the scholarship, however, this is not a requirement. For options regarding internship or volunteer service, contact the local 4-H youth specialist. The scholarship is renewable for up to an additional three years, dependent on maintaining a 2.50 GPA at an accredited college, university, technical or trade school for year 1, year 2 and year 3 of the scholarship.</td>
<td>Jackson County</td>
</tr>
<tr>
<td><strong>Jasper County 4-H Scholarship</strong></td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at any accredited college, university, technical or trade school, or community college.</td>
<td>1. Southwest Region 2. State 4-H Council members 3. Statewide</td>
</tr>
<tr>
<td><strong>Ruth and Jim Mellor 4-H Scholarship</strong></td>
<td>1</td>
<td>$500</td>
<td>Undergrad Graduate</td>
<td>Applicants must be a present or former 4-H member from St. Charles County planning to enroll or be enrolled as undergraduate at an accredited 4-year college or university, community college, technical or trade school or in a graduate program. The recipient is not limited to Missouri schools. Preference in awarding the scholarship will be given to current or former 4-H members from the Harvester 4-H Club. In the event there are no qualified applicants from Harvester 4-H Club, the scholarship may be awarded countywide.</td>
<td>Statewide</td>
</tr>
<tr>
<td><strong>Robert and Anna Noland 4-H Scholarship</strong></td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Applicants must be present or former 4-H members planning to enroll as a freshman at an accredited four-year college, university, technical or trade school. This scholarship is not limited to Missouri schools.</td>
<td>Statewide</td>
</tr>
<tr>
<td><strong>Orscheln 4-H Scholarships</strong></td>
<td>14</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Attend University of Missouri College of Agriculture, Food and Natural Resources, or a Missouri institution offering four-year courses in AGRICULTURE or AGRI-RELATED services. Applicant must be a 4-H member during four years prior to graduating from high school. Preference is given to applicants living in areas served by Orscheln Farm &amp; Home stores.</td>
<td>Statewide</td>
</tr>
<tr>
<td><strong>Zachary Parsons Memorial 4-H Scholarship</strong></td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at an accredited four-year university.</td>
<td>1. Johnson County 2. West Central Region 3. Statewide</td>
</tr>
<tr>
<td><strong>Charles and Marilyn Rosenkrans 4-H Scholarship</strong></td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Preference will be given to applicants planning to enroll as juniors or seniors at the University of Missouri College of Agriculture, Food and Natural Resources. If an appropriate applicant is not found, applicants planning to enroll as freshman or sophomore at the University of Missouri College of Agriculture, Food and Natural Resources will be considered. An individual may receive the scholarship for no more than two years. Applicants must major in an agricultural field.</td>
<td>1. Monroe, Pike and Shelby counties 2. Adjoining counties 3. Statewide</td>
</tr>
<tr>
<td><strong>Fowler and Viola Smith Young Memorial 4-H Scholarship</strong></td>
<td>1</td>
<td>$500</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at an accredited Missouri college, university, or technical or trade school (two- or four-year institution). Applicant must be a 4-H member during the four year period prior to graduating from high school and planning to enroll in school in the fall of the current year. Applicant must be a resident of Moniteau County. Scholarship will not be awarded if there are no qualified applicants.</td>
<td>Statewide</td>
</tr>
<tr>
<td><strong>Joyce and Dick Taylor 4-H Scholarship</strong></td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>Must be applied toward a course of study at the University of Missouri-Columbia and major in Agriculture, Food and Natural Resources or Human Environmental Sciences.</td>
<td>1. Northeast Region 2. State 4-H Council members 3. Statewide</td>
</tr>
<tr>
<td><strong>Tolle-Stumpe Family 4-H Scholarship</strong></td>
<td>1</td>
<td>$1,000</td>
<td>Undergrad Graduate</td>
<td>Applications must be a current or former 4-H member planning to enroll or be enrolled at the University of Missouri in the College of Human Environmental Sciences.</td>
<td>1. Architectural Studies 2. Remaining program areas in HES</td>
</tr>
<tr>
<td><strong>Nelson Trickey 4-H Bridge Builder Scholarship</strong></td>
<td>1</td>
<td>$1,000</td>
<td>Freshman</td>
<td>University of Missouri-Columbia and major in AGRICULTURE, FOOD and NATURAL RESOURCES or Veterinary Medicine. Scholarship selection based on 50% 4-H Achievement in leadership, citizenship, and community service, 50% Financial need.</td>
<td>1. Cape Girardeau County 2. Boone County 3. Statewide</td>
</tr>
<tr>
<td><strong>Waldo and Mary Belle Turner 4-H Scholarship</strong></td>
<td>2</td>
<td>(1 each)</td>
<td>Freshman</td>
<td>Applicants must have been a participant in the MU Extension-sponsored 4-H Youth Futures: College Within Reach program and be planning to enroll or be enrolled as an undergraduate at an accredited college or university, community college, technical or trade school. The scholarship recipient is not limited to Missouri schools.</td>
<td>Statewide</td>
</tr>
</tbody>
</table>
Missouri 4-H Recognition and Awards

Recognition is available to 4-H members at all levels of involvement from project groups to our highest award, the Key Award. Recognition can occur during project meetings when a member is asked to demonstrate a skill they have mastered. It also occurs when older 4-H members compete for the chance to attend National 4-H Congress or National 4-H Conference. For details about various recognitions and awards, see http://4h.missouri.edu/recognition/awards.

Participation

Essential elements: Belonging and independence
A first step in building self-confidence is to acknowledge 4-H members for their involvement in educational experiences. Clubs, groups and counties are encouraged to recognize participation by 4-H members and volunteers. Creative ideas for recognizing Clover Kids, new members and new families help welcome them into the 4-H program and create a sense of belonging and community.

Participation samples
- Clover Kid membership card and pin
- 4-H membership card
- 4-H year completion
- Award certificates
- 4-H leadership completion certificates
- 4-H charter
- 4-H club kit

Standards of Excellence

Essential elements: Mastery and independence
Recognition of achievement for standards of excellence gives young people an external, pre-determined target for their learning experience. Members may elect to have 4-H projects or their performance evaluated at a local or county 4-H show, fair or other exhibit opportunity.

Mastery is the building of knowledge, skills and attitudes and then demonstrating the competent use of this knowledge and skill. The level of mastery is dependent on the developmental ability of the individual youth. The development of mastery is a process that happens over time and is increased with repetition.

Standards of excellence samples
- 4-H club standards of excellence
- Project work standards of excellence (Blue/Gold, Red/Silver, White/Bronze recognition)
- Award certificates

Peer Competition

Essential elements: Mastery and independence
Some 4-H members are encouraged by competition and enjoy the opportunity to compete with peers to determine the best project, performance or achievement. Members should be reminded that in competition there are winners, but there are many more non-winners. Members should be prepared to accept the results of the judge’s decision and are encouraged to appreciate the valuable learning that took place before, during and after the competition.

Peer competition samples
- Award certificates
- State excellence awards (Missouri Recognition Forms)
- State 4-H Council
- National 4-H Congress
- National 4-H Conference
- MFA Saddle Award
- Tennessee Walking Horse Award
PROGRESS TOWARD PERSONAL GOALS

*Essential elements: Independence, belonging and mastery*

Progress toward personal goals enables young people to gain experience in goal-setting and realistic self-assessment as they plan their projects, set their goals and reflect on their experience.

### Progress toward personal goals samples

- Project records
- Key Award
- Award certificates
- Missouri Recognition Forms

COOPERATION

*Essential elements: Belonging and generosity*

Recognition for cooperation helps young people learn and work with others — preparing them for living in today’s interdependent, global society. Missouri 4-H creates environments where young people are valued, contributing members of their community. Focusing on young people helps communities recognize that young people are a valuable resource for the betterment of their community.

### Cooperation samples

- 4-H Foundation Community Service Grant
- Kids Helping Kids
- Building Our American Communities Grants
- Challenge and Adventure Training

**Note:** The only areas of the recognition model that are appropriate for Clover Kids are participation and cooperation. It is appropriate to start helping them understand or think about standards of excellence, but their performance should not be evaluated in relation to the standards. Recognition is important for Clover Kids, but it should be positive and non-competitive.

### Completing a Year of 4-H Membership

4-H club members are recognized for setting and completing goals each year. At a minimum, a 4-H member should:

- Attend a majority of club or group meetings.
- Enroll in at least one project and finish it. This includes attending a majority of project meetings, working on project goals and keeping records on the project.
- Demonstrate a skill learned or knowledge gained by making a handmade item, exhibiting a project or project animal at a show or fair, or presenting a speech, report or demonstration in a group setting such as a club or project meeting.

When a 4-H club member meets these requirements, they are recognized for “completing a year of 4-H membership.” Most county 4-H programs award a yearly membership pin to all 4-H Club Members who “complete the year.” County 4-H councils may establish additional standards for 4-H clubs within a county. In all cases, these requirements must provide equal access for all young people and must not create barriers to participation.

In the event that a member cannot meet the minimum requirements due to college enrollment, family situation, employment or other factors, the club leader might agree with the member to create options for completion. When possible, this agreement should be planned in advance by the volunteer club leader and the member. County 4-H staff must agree to the terms of the Y639, Individual 4-H Member Comprehensive Plan (fillable PDF), and it must be kept on file at the local extension center. For a copy of the plan, go online to [http://4h.missouri.edu/join-4h.aspx](http://4h.missouri.edu/join-4h.aspx).

### STATE EXCELLENCE AWARDS (MISSOURI RECOGNITION FORMS)

Missouri Recognition Forms Levels 1, 2 and 3 are used as both progress toward personal goals and peer competition. For applications and full guidelines please see [http://4h.missouri.edu/peercompetition.aspx](http://4h.missouri.edu/peercompetition.aspx).

#### Level 1 (Junior)

- 4-H members who are between 8 and 10 years old on Dec. 31 of the program year are eligible to apply.
- Up to five applications submitted from regional review may be forwarded to the state 4-H office.
- Applicants will be considered State Winners and will receive a certificate, medal of excellence and a scholarship up to $50 toward a camp experience.

#### Level 2 (Intermediate)

- 4-H members between 14 and 18 years old on Dec. 31 of the program year are eligible to apply.
- Up to three applications submitted from regional review may be forwarded to the state 4-H office by Dec. 15.
- Applicants will be considered State Winners and will receive a scholarship to attend State 4-H Teen Conference, or if aged out, the scholarship will be applied to State 4-H Congress.
Level 3 (Senior)

- 4-H members who are between 14 and 18 years old on Dec. 31 of the program year are eligible to apply. 4-H members who submit their applications in the fall the year they turn 19 may have their applications considered at regional and state review the following year.

Level 3 forms are used as part of the selection process for National 4-H Congress and National 4-H Conference. Information about the selection process can be found at [http://4h.missouri.edu/peercompetition.aspx](http://4h.missouri.edu/peercompetition.aspx)

**National 4-H Congress**

Delegates participate in a wide range of educational workshops and hear from speakers such as the current Miss America. They also participate in a morning of service around Atlanta where they work in classrooms, clean up parks, prepare meals for homeless and shut-ins and much more. Delegates also have the opportunity to tour some of Atlanta's landmarks such as Coca-Cola, the Martin Luther King Jr. visitor center and others.

**National 4-H Conference**

The purpose of National 4-H Conference is to:

- Engage 4-H Youth in personal development experiences that will increase knowledge, resources and skills;

- Present a youth voice to a partnering federal agency about specific issues affecting youth and communities nationwide;

- Empower and mobilize 4-H youth to create positive social change in their communities in a meaningful and genuine way.
<table>
<thead>
<tr>
<th>Event/Location/Date</th>
<th>Ages</th>
<th>Description</th>
<th>URL</th>
<th>Competitive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shooting Sports: Trap and Archery</strong>&lt;br&gt;300 Shoot&lt;br&gt;Missouri Trapshooters Association, Linn Creek, Mo.&lt;br&gt;Usually the fourth Saturday in August</td>
<td>8-18</td>
<td>Complete project requirements, Pre-registration is required.</td>
<td><a href="http://4h.missouri.edu/shooting-sports/opps">http://4h.missouri.edu/shooting-sports/opps</a></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Horse Public Speaking &amp; Demonstration Contest</strong>&lt;br&gt;University of MO- Columbia Fall</td>
<td>8-18</td>
<td>No limit on the number of participants per county. Project enrollment is not required. Top individuals in senior Speaking and Demo, and top senior Team Demo will advance to national competition.</td>
<td><a href="http://4h.missouri.edu/horses/opps">http://4h.missouri.edu/horses/opps</a></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Shooting Sports: State Shoot and all other events</strong>&lt;br&gt;Prairie Grove Shotgun Sports, Columbia, Mo. September</td>
<td>8-18</td>
<td>Participation is open to all 4-H’ers enrolled in the Shooting Sports project who have successfully completed project requirements. Must have participated in the same event at a local or regional level. Individual and team awards.</td>
<td><a href="http://4h.missouri.edu/shooting-sports/opps">http://4h.missouri.edu/shooting-sports/opps</a></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>State 4-H Public Speaking Contest</strong>&lt;br&gt;University of Missouri - Columbia Sept. 29, 2018</td>
<td>8-18</td>
<td>Speakers compete as juniors, intermediates, and seniors. 4-H’ers may compete in one category at this contest. Individual awards.</td>
<td><a href="http://www.4h.missouri.edu/state-public-speaking/main">http://www.4h.missouri.edu/state-public-speaking/main</a></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Fashion Revue</strong>&lt;br&gt;Columbia, Mo. Sept. 22, 2018</td>
<td>8-18</td>
<td>It is preferred that participants are enrolled in 4-H clothing, textile, knit or crochet projects, but any 4-H member selected as a winner in a county 4-H Fashion Revue is eligible to compete. One junior (ages 8–10), one intermediate (ages 11–13) and one senior (ages 14–18) may participate in Clothes You Make and Clothes You Buy categories. One contestant (junior, intermediate or senior) may participate in Knit and Crochet categories. Each county may send up to eight contestants.</td>
<td><a href="http://4h.missouri.edu/fashion-revue/main">http://4h.missouri.edu/fashion-revue/main</a></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>National 4-H Congress</strong>&lt;br&gt;Atlanta, Ga. Nov. 23-27, 2018</td>
<td>Seniors</td>
<td>Youth participate in workshops, perform service around Atlanta, tour area landmarks and meet other members from across the country.</td>
<td><a href="http://4h.missouri.edu/nationalcongress/main">http://4h.missouri.edu/nationalcongress/main</a></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Regional Energizers</strong>&lt;br&gt;Locations vary Winter</td>
<td>8-18</td>
<td>Meet other members and leaders in your region and learn about opportunities and projects. Some regions also provide trainings at this event.</td>
<td>Contact your local MU Extension county office for more information; not every region has a regional energizer.</td>
<td>No</td>
</tr>
<tr>
<td><strong>Meats Judging Contest</strong>&lt;br&gt;Columbia, Mo. Winter</td>
<td>8-18</td>
<td>Project enrollment is not required. Team and individual awards. Top senior teams go to National Meats Contest in Manhattan, Kan. Partial funding is available for trip.</td>
<td><a href="http://4h.missouri.edu/meats/MeatsJudging">http://4h.missouri.edu/meats/MeatsJudging</a></td>
<td>Yes</td>
</tr>
</tbody>
</table>

*More 4-H State Events and Opportunities on the next page.*
<table>
<thead>
<tr>
<th>Event/Location/Date</th>
<th>Ages</th>
<th>Description</th>
<th>URL</th>
<th>Competitive</th>
</tr>
</thead>
</table>
| Missouri 4-H Legislative Academy  
Jefferson City, Mo.  
February 18-20, 2019 | 14-18 | At this three-day Academy, delegates meet and interact with three branches of Missouri state government, including elected state officials, judicial leaders, lawmakers, and partner organizations. Teens gain skills as advocates for Missouri 4-H and prepare for careers in public service. | http://4h.missouri.edu/legislativeacad/main | No |
| Missouri Youth Civic Leaders Summit  
Roach, Mo.  
March | 14-20 | The summit is a statewide conference for teens and adults of all ages who are involved in leadership, service, and community engagement. Teens and adult leaders come together to build teamwork, youth-adult partnerships, leadership and career skills, and plan community action projects. Groups of 3-10 people perform at a team event that represents their club, council, county project, school, or Missouri Community Betterment group. Teams can request mini-grant funds after the summit to implement projects that impact their communities and world. | http://4h.missouri.edu/ycls/main | No |
| State Teen Conference  
Columbia, Mo.  
March | 11-13 | State 4-H Teen Conference is a great way for 11- to 13-year-old team.What will it take to be a teenager? 4-H Conference is planned and implemented by the teens on your Missouri State 4-H Council, and provides a safe and fun environment with many new friends to be made. | http://4h.missouri.edu/events/teenconf | No |
| Horse Bowl  
Columbia, Mo.  
Spring | 8-18 | Project enrollment is not required. Teams and individual awards. Senior team advances to the national contest. Partial funding is available for competition. | http://4h.missouri.edu/horses/opps | Yes |
| Hippology  
Columbia, Mo.  
Spring | 8-18 | No limit on number of teams per county. Total registration is limited to the first 180 participants. Project enrollment is not required. Teams and individual awards. Senior team advances to national contest. Partial funding is available for this trip. | http://4h.missouri.edu/horses/opps | Yes |
| Wildlife Habitat Education Project  
Columbia, Mo. | 8-18 | Individual or team awards for juniors and seniors. The four highest scoring seniors will form the state team and represent Missouri in the National WHEP contest. Specific project enrollment not required. | http://4h.missouri.edu/whep/main | Yes |
| National 4-H Conference  
Washington D.C.  
April 6-11, 2019 | Seniors | Youth of the opportunity to present their ideas and plans of action to various federal agencies and partners. | http://4h.missouri.edu/nationalconf/main | Yes |
| State 4-H Robotics Contest  
Columbia, Mo.  
May 18, 2019 | 8-18 | Participation is open to all 4-H'ers enrolled in the 4-H Robotics projects who have successfully completed project requirements. Individual and team awards given to three age categories. | http://mo4h.missouri.edu/robotevents/robotexhibition | Yes |
| Missouri 4-H Equine Tour  
May | Seniors | Explore the horse industry through a week-long study trip that focuses on a new region of the country each year. | http://4h.missouri.edu/equine-tour/main | No |
<table>
<thead>
<tr>
<th>Event/Location/Date</th>
<th>Ages</th>
<th>Description</th>
<th>URL</th>
<th>Competitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Congress</td>
<td>14-19</td>
<td>State Congress is a fun-filled event where teens have the opportunity to participate in a variety of workshops, experience team building, meet new people from across the state and decide who will represent you on the State 4-H Council. Congress is planned and implemented with the Council and held on the MU campus.</td>
<td><a href="http://4h.missouri.edu/statecongress/main">http://4h.missouri.edu/statecongress/main</a></td>
<td>No</td>
</tr>
<tr>
<td>Little Dixie Conservation Area near Millersburg, Mo.</td>
<td>8-18</td>
<td>Individual awards for Juniors, Intermediate, and Seniors. No limit on the number of youth participants per county. 4-H Sportfishing project enrollment is required.</td>
<td><a href="http://4h.missouri.edu/sportfishevent/main">http://4h.missouri.edu/sportfishevent/main</a></td>
<td>Yes</td>
</tr>
<tr>
<td>Public Speaking Academy</td>
<td>11-13</td>
<td>Learn in an non-competitive environment, about writing and delivering a speech. Non 4-Hers welcome.</td>
<td><a href="http://4h.missouri.edu/public-speaking-academy">http://4h.missouri.edu/public-speaking-academy</a></td>
<td>No</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>14-19</td>
<td>A living and learning experience in citizenship where young people see, learn, listen, discuss and debate in workshops, seminars and field trips for a unique opportunity using the nation's capitol as a classroom. Watch for trip dates and registration starting fall 2018.</td>
<td><a href="http://4h.missouri.edu/CWF">http://4h.missouri.edu/CWF</a></td>
<td>No</td>
</tr>
<tr>
<td>Summers @ Mizzou</td>
<td>12-18</td>
<td>Young people learn about different college majors and careers. They can experience college life as a college student by living in a dorm, eating in a dining hall and exploring campus and Columbia.</td>
<td><a href="http://4h.missouri.edu/summersmizzou/main">http://4h.missouri.edu/summersmizzou/main</a></td>
<td>No</td>
</tr>
<tr>
<td>TBA</td>
<td>11-18</td>
<td>Films can be submitted, if desired. Team awards in narrative, documentary, animation, 4-H promotional and Voices of 4-H categories.</td>
<td><a href="http://filmfest4h.org">http://filmfest4h.org</a></td>
<td>Yes and No</td>
</tr>
<tr>
<td>Columbia, Mo.</td>
<td>8-18</td>
<td>Project enrollment is not required. Team and individual awards.</td>
<td><a href="http://4h.missouri.edu/poultry/statepoultryday">http://4h.missouri.edu/poultry/statepoultryday</a></td>
<td>Yes</td>
</tr>
<tr>
<td>Location varies</td>
<td></td>
<td>This is your opportunity to show others what skills and knowledge you have learned in your 4-H project.</td>
<td></td>
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</tr>
<tr>
<td>Aerospace Camp</td>
<td>10-13</td>
<td>Prepare to blast off for three fun-filled days on the Missouri S&amp;T campus. Experience aeronautics and space flight from the ground-up perspective, as you learn about the history of flight, astronomy and space exploration. Your three days will be filled with computer simulations, interactive teamwork activities and practical hands-on experiences.</td>
<td><a href="http://futurestudents.mst.edu/summer-camps/aerospace-camp/">http://futurestudents.mst.edu/summer-camps/aerospace-camp/</a></td>
<td>No</td>
</tr>
<tr>
<td>Columbia, Mo.</td>
<td>8-18</td>
<td>Team and individual awards. Top senior county teams advance to national competitions. Partial funding is available for this trip.</td>
<td><a href="http://mo4h.missouri.edu/judging/judging-contest">http://mo4h.missouri.edu/judging/judging-contest</a></td>
<td>Yes</td>
</tr>
<tr>
<td>Horse Judging Contest</td>
<td>8-18</td>
<td>No limit on the number of participants per county. Project enrollment is not required. Team and individual awards. Senior team advances to national contest. Partial funding is available for trip.</td>
<td><a href="http://4h.missouri.edu/horses/horse-judging-contest">http://4h.missouri.edu/horses/horse-judging-contest</a></td>
<td>Yes</td>
</tr>
</tbody>
</table>
### 4-H State Events and Opportunities — Continued

<table>
<thead>
<tr>
<th>Event/Location/Date</th>
<th>Ages</th>
<th>Description</th>
<th>URL</th>
<th>Competitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri State Fair: 4-H Building</td>
<td>All</td>
<td>Members have the opportunity to display projects, present demonstrations and compete in contests.</td>
<td><a href="http://www.mostatefair.com">www.mostatefair.com</a></td>
<td>Yes and No</td>
</tr>
<tr>
<td>Sedalia, Mo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>August 8-18, 2019</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Show-Me 4-H Wares at the Missouri State Fair</td>
<td>11-18</td>
<td>Youth selected as Show-Me-4-H Wares exhibitors sell original items at State Fair sales booths. 4-H members enrolled in entrepreneurship are encouraged to apply, but booth is open to all ages 11 and up. (Youth ages 8-10 can assist an older member.)</td>
<td><a href="http://4h.missouri.edu/showme4hwares/main">http://4h.missouri.edu/showme4hwares/main</a></td>
<td>No</td>
</tr>
<tr>
<td>Sedalia, Mo.</td>
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<tr>
<td>August 8-18, 2019</td>
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<tr>
<td>Missouri State Fair: Chicken or Barbecue</td>
<td></td>
<td>Top senior goes to national contest.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Sedalia, Mo.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>August 8-18, 2019</td>
<td></td>
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<tr>
<td>Missouri State Fair: Dairy Judging</td>
<td></td>
<td>Open sign-up on the day of the contest. Project enrollment is not required. Senior team advances to national contest.</td>
<td>Registration information available at mostatefair.com under the open dairy section.</td>
<td>Yes</td>
</tr>
<tr>
<td>Sedalia, Mo.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>August 17, 2019</td>
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</tr>
<tr>
<td>Missouri State Fair: Clover Kids Day</td>
<td>5-7</td>
<td>Clover Kids have the opportunity to display an item they have made, present a demonstration and participate in science, arts and other fun learning activities.</td>
<td>No registration needed</td>
<td>No</td>
</tr>
<tr>
<td>Sedalia, Mo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 11, 2019</td>
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<td></td>
</tr>
</tbody>
</table>

Events will be canceled if a minimum is not met. State information can be found at [http://4h.missouri.edu/events](http://4h.missouri.edu/events).

Make sure to confirm dates on the website or with your local MU Extension center. Many state 4-H competitive events include junior, intermediate and senior divisions. For all these events, junior competitors are those who are 8-13 years old; intermediate competitors are those who are 11-13; and senior competitors are those who are 14-18 years old before Jan. 1 of the program year.

- 4-Hers may not compete in two state contests held on the same day.
- 4-H Clover Kids do not participate in competitive events, contests or shows.
STATE 4-H COUNCIL
The Missouri State 4-H Council is a body of teens elected by their peers to serve as their voice at the state level. As resources for the 4-H program, council members help ensure that Missouri 4-H programs connect with the needs and interests of youth. Council members help plan and implement statewide programs, advise on policy issues and carry out many other important duties. The council also manages the “Kids Helping Kids” fund, designed to help their fellow 4-H’ers in times of need.

The State 4-H Council consists of 32 regional representatives, including four from each MU Extension 4-H region and one from each Lincoln University Extension program area. They are guided by an executive committee of four officers, four state representatives and four adult advisors. Regional representative candidates must be between the ages of 14 and 17 on Dec. 31 of the program year, and officer candidates may be as old as 18. Officer candidates for the following year are nominated each winter by the council, selecting candidates from the body of current regional representatives. Regional representative candidates are identified through a regional interview process in the spring. Both regional representatives and officers are elected to their positions by the delegates at State 4-H Congress in the summer.

If you are interested in being a candidate for regional representative, contact the 4-H staff at your local MU Extension center.

The State 4-H Council is a youth-adult partnership of MU Extension’s 4-H Center for Youth Development and Lincoln University Extension.

For an application and more information, visit http://4h.missouri.edu/missouri-4h-council.aspx.

KIDS HELPING KIDS
Difficult times and disasters can strike anyone. When times are at their worst, it is nice to know that someone cares and wants to help. Kids Helping Kids is a program devoted to helping Missouri 4-H members and their families in times of need by providing small financial grants to 4-H members who have gone through family hardships like natural disasters, medical emergencies, the loss of a loved one or other traumatic events.

The grant application is handled by 4-H staff and administered by the State 4-H Council.

For more information, contact your local MU Extension center, or the Missouri 4-H Foundation at 1-800-642-8041 or visit http://4h.missouri.edu/foundation/kids-grant.aspx.

4-H — LEARNING THROUGH SERVING
4-H is about youth and family development. One way families can experience 4-H together is through community service-learning. Service-learning helps 4-H’ers learn more about communities and exercise good citizenship. Teaching young people to show generosity by volunteering is an important life skill.

Clubs turning in the LG760 community service log in September will be recognized with color seals. The seal color represents the percentage of total club participation in service:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Seal Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 percent and above</td>
<td>purple</td>
</tr>
<tr>
<td>75 percent – 94 percent</td>
<td>gold</td>
</tr>
<tr>
<td>50 percent – 74 percent</td>
<td>silver</td>
</tr>
<tr>
<td>49 percent and below</td>
<td>green</td>
</tr>
</tbody>
</table>

Find the LG760 community service log at http://4h.missouri.edu/doc/LG760FILL.pdf.

Community service-learning project ideas and guidesheets can be found at http://4h.missouri.edu/service/main.

Also see community service grant funding at http://4h.missouri.edu/foundation/community-service.aspx.
4-H Camp Is an Adventure

Join thousands of other 4-H'ers in a great adventure this summer — 4-H camp!

Leave home and routine behind for a couple of days and participate in one of the great experiences of your 4-H career. Turn off the Xbox, get outside and experience camp. Stretch your horizons, meet new friends, breathe fresh air, sing silly songs, share in camp responsibilities, crawl into a sleeping bag, laugh with friends, learn something new, try something out of the ordinary, be independent, create your own skit and play outdoors. 4-H Camp — be part of it this summer!

Parents:
Recent studies conducted across Missouri with young people and parents indicated that 4-H campers did indeed develop valuable life skills. Specific life skills measured were teamwork, social skills, learning to learn and self-responsibility. It’s also a fun adventure!

Parents surveyed used a scale of 1 to 4 (1= Strongly Disagree, 2=Disagree; 3=Agree, 4=Strongly Agree). These survey results show the value of 4-H Camp:

After attending camp:
• My child is more willing to try new things: 3.18
• My child is better at meeting new people: 3.09
• My child takes more responsibility for self: 3.03
• To me, the benefits of camp outweigh the costs: 3.53

Each county or camp group determines what to offer according to their individual needs and abilities. Contact your local MU Extension center to find out about camp opportunities. Watch the monthly 4-H newsletter for important camp information. Applications are often due in April. Camp information and some of Missouri 4-H camps are listed at http://4h.missouri.edu/camps/main.

Citizenship Washington Focus

Citizenship Washington Focus is a living-learning experience in citizenship where young people see, learn, listen, discuss and debate in workshops, seminars and field trips for a unique opportunity using the nation’s capital as a classroom.

Delegates will view national memorials, The Smithsonian, Mount Vernon and Arlington Cemetery. The program is held at the National 4-H Center, located in Washington, D.C.

Objectives
• To help young people understand their rights and responsibilities as active, involved citizens.
• To provide a better understanding of the structures and functions of government.
• To stimulate an appreciation of our national heritage and culture.
• To provide an opportunity to view international interdependence.
• To provide the opportunity to meet other 4-H'ers from across the nation.

Registration
This trip is coordinated on a regional and/or state level by youth staff. Check with your local University of Missouri Extension center in the fall for information. A deposit is usually required in late fall to secure a spot on the trip.

Eligibility
To participate, young people must be 15-19 years old before Jan. 1 of the current 4-H program year.

Fees
The planning committee determines a registration fee annually. The fee covers lodging, most meals during the conference and insurance.

For more information, visit http://4h.missouri.edu/cwf.
4-H GLOBAL EDUCATION

Just as 4-H goes beyond our doorstep and your county line, it also goes beyond our nation's borders.

4-H Global Education contributes to understanding people of the world through hosting, travel experience, project and activity enrollment for individuals and clubs. This experience provides 4-H families insight into the world in which we live by participating in some phase of Global Education.

Get more information at http://4h.missouri.edu/global-ed/main.

Global Education at home

- 4-H International Demonstration Contest at the Missouri State Fair. Knowledge of the cooking customs and culture, along with nutritional information, are educational components of the presentation.
- 4-H project or club activity using the curriculum “Seeingi2i”
- 4-H leader materials
- Educational resources are available for checkout from the state 4-H office

**Freedom Support Act/Future Leaders Exchange (FLEX) high school host family**

- Serve as host family for students from Eurasia countries such as Ukraine, Russia, Georgia, Azerbaijan, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Uzbekistan and Armenia
- Enroll as a junior or senior in a local high school
- Arrive at host state in August and depart in June

**Application deadline: Dec. 1**

**4-H/Japanese short-term host family**

- Four-week host opportunities for a youth from Japan
- Arrive at host family in mid-July; depart mid-August
- Two weeks serving as host to the adult chaperone who accompanies the youth delegates

**Application deadline: March 1**

**4-H/Japanese high school host family**

- Serve as host family for Japanese student who will be enrolled at local high school as a junior or senior
- Arrive at host family in August and depart in June

**Application deadline: Dec. 1**

**4-H/Japanese exchange to Japan**

- Four-week host family experience living in Japan
- Open to young people ages 12-18 as of Dec. 31 of current program year
- Depart mid-July

**Application deadline: Nov. 1**

**Exchange to Norway, Argentina, Costa Rica, Finland, Australia and Korea (countries vary each year)**

- Four-week experience living with a host family (countries vary each year)
- Open to young people ages 15-18 as of Dec. 31 of current program year (must not be in college)
- Travel dates are mid-June to mid-July

**Application deadline: Nov. 1**

**4-H BEYOND 18**

**COLLEGIATE 4-H**

Collegiate 4-H offers its members social activities, leadership and community involvement, as well as travel to regional and national conferences. Collegiate 4-H focuses on helping members develop leadership and responsibility while serving the community. Members are not required to complete projects or similar activities as in traditional 4-H programs. Collegiate 4-H provides workshops, officer training and motivational training. Check your local college or university to see if an existing Collegiate 4-H Chapter exists. If not, Mizzou 4-H is open to anyone on campus, along with members at-large from across the state. Past 4-H members and students with no previous 4-H experience can be part of Collegiate 4-H.

For more information about Collegiate 4-H or starting a new chapter, contact mizzou4h@gmail.com.
NATIONALLY RECOGNIZED PROGRAM MODELS

MARSHALL MENTOR PROGRAM
Featuring strong anti-bullying and animal rescue themes, this program stems from the story of a Labrador retriever and the bullied boy who rescues him.

The Marshall Mentor program, through a yearlong MU Extension 4-H program, gives older 4-H youth opportunities to use leadership and public speaking skills. Younger youth are exposed to positive role models through the program and learn strategies for putting an end to bullying by living Marshall’s character cornerstones of empathy, strength, courage, perseverance, kindness and forgiveness.

For more information about the Marshall Mentor program, visit http://www.marshallthemiracledog.com/ or contact your local 4-H staff member.

4-H LIFE (LIVING INTERACTIVE FAMILY EDUCATION)
The 4-H LIFE Program is a 4-H youth development program designed to strengthen relationships in families with an incarcerated parent. Qualified offenders and their family members participate in ongoing, prison-based 4-H club meetings and project activities. The program has three components:

- 4-H LIFE family club visits with the incarcerated parents, the children and caregivers. The visit is enhanced through a more family-friendly visiting room atmosphere that includes a 4-H club meeting, 4-H projects and fun, family-strengthening activities.
- Parenting classes to develop incarcerated parents’ skills in relating to their children and the caregiver who is raising them.
- Planning meetings designed to teach the incarcerated parents how to plan age-appropriate, educational activities for the visits with their children at the correctional center.

Learn more about the 4-H LIFE Program at http://extension.missouri.edu/4hlife.

4-H LIFE Program Staff Guide is online at http://extension.missouri.edu/4hlife/staff-guide.aspx.

MISSOURI 4-H YOUTH FUTURES: COLLEGE WITHIN REACH
Is college an option you’ve never really considered because the process of preparing seems too mysterious and involved? Are you interested in attending college but are not quite sure what to do to prepare yourself? 4-H Youth Futures: College Within Reach is an extensive college orientation program that promotes college as an attainable goal for high school youth who may not necessarily consider college as an option, such as first-generation college students. The goal of this program is to help youth prepare, enroll and graduate from college.

Components of the program
- Mentoring — Youth Futures provides yearlong mentoring on the local level by staff and volunteers to provide continuous support throughout the preparation process.
- Parent sessions — are held throughout the year to help equip parents with the skills needed to help their youth.
- Conferences — The Youth Futures Conference helps youth learn about academic programs, student life activities and college survival skills. Participants also learn about financial assistance and receive resources and information regarding campus life and college guidance. Residing in college residence halls, attending workshops and participating in MU, LU and community activities provides youth the experiences they need to prepare for and be successful in college. A practice ACT test is administered to prepare youth for this important step toward college enrollment. If a mentor determines it is warranted and valuable, some youth attend the conference more than once. Other mini conferences are also offered throughout the year, such as the Rising Seniors Weekend and the Transitioning Seniors Conference.

To learn more about Missouri 4-H Youth Futures: College Within Reach, visit http://4h.missouri.edu/youth-futures/main.
# 4-H Project Record

Please complete both sides of this form for **each** project at the completion of the project year. Use with all projects **including** animal projects.

A story is to be submitted with the 4-H Project Record. (A one-page story, accompanied by two pages of pictures, may help in describing your project.) If forms Y2000, Y2100 or Y2200 are submitted, a story is not necessary.

<table>
<thead>
<tr>
<th>Project</th>
<th>County</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>4-H age (as of Jan. 1)</td>
<td>Birth date</td>
</tr>
<tr>
<td>Address</td>
<td>City</td>
<td>State</td>
</tr>
<tr>
<td>Name of 4-H club</td>
<td>Years in project</td>
<td>Years in 4-H</td>
</tr>
</tbody>
</table>

## Goal Setting

<table>
<thead>
<tr>
<th>Project goals (What would I like to learn this year?)</th>
<th>Date accomplished/Comments</th>
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<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>3.</td>
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<table>
<thead>
<tr>
<th>Overall 4-H goals (What would I like to learn this year?)</th>
<th>Date accomplished/Comments</th>
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<tbody>
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<td>2.</td>
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<td>3.</td>
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## Learning and Leadership Experiences

List your learning and leadership experiences in the project area and tell what you have learned. Designate level of participation with the appropriate letter: Local or club (L), County (C), Regional (R), State (S)

<table>
<thead>
<tr>
<th>Experience</th>
<th>What was learned</th>
<th>Level</th>
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University of Missouri Extension

Y620
Knowledge and Skills
What specific knowledge and skills did you learn in your project? Include what you have learned from mistakes. How can you apply what you have learned to your life?

<table>
<thead>
<tr>
<th>Knowledge and skills</th>
<th>How can you use the knowledge and skills?</th>
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Information About Project or Animals
List items made or animals used in this project.

<table>
<thead>
<tr>
<th>Name of item or animal ID</th>
<th>Specifics such as size of item, sex and weight of animal</th>
<th>Estimated hours spent with items or animals</th>
<th>Something you learned from this project that was not listed as a goal on the front page</th>
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</table>

Financial Summary
Costs involved with your project work should be included here. Include expenses such as fabrics, materials, supplies, feed and breeding fees. Also include incomes from sale of items or animals.

<table>
<thead>
<tr>
<th>Date</th>
<th>Purchased from or sold to</th>
<th>Items purchased or sold (include amounts and other specifics)</th>
<th>Expenses</th>
<th>Receipts</th>
<th>Balance (profit or loss)</th>
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1. What are your total costs or expenses? (total expense column) ________________________________
2. What is your total income? (total receipt column) __________________________________________
3. What is your total profit or loss? (subtract line 1 from line 2) _____________________________

Approval of This Report
This is to verify that this report is the work of the member and is believed to be correct and accurate.

<table>
<thead>
<tr>
<th>Member signature</th>
<th>Date completed</th>
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</thead>
<tbody>
<tr>
<td>Parent name</td>
<td>Parent signature</td>
</tr>
<tr>
<td>Club leader name</td>
<td>Club leader signature</td>
</tr>
<tr>
<td>Project leader name</td>
<td>Project leader signature</td>
</tr>
</tbody>
</table>
The Ag Youth Program at FCS Financial is part of our commitment to Young, Beginning and Small Farmers. The growth and success of agriculture in Missouri including the future producers is important to us; as is guiding them through financial and educational assistance. Contact our lending specialists today to learn more about how we are investing in agriculture’s future.

Open to all Missouri 4-H and FFA members in counties served by FCS Financial.

Funds available for qualifying 4-H and FFA projects

Repayable within one year, interest free

Learn how to keep good, accurate and complete project records