Spring 2018

4-H Programs: An Overview

Darrian Lee
darrianlee00@gmail.com

Follow this and additional works at: http://digitalcommons.murraystate.edu/bis437

Recommended Citation
http://digitalcommons.murraystate.edu/bis437/123

This Thesis is brought to you for free and open access by the Regional Academic Outreach at Murray State's Digital Commons. It has been accepted for inclusion in Integrated Studies by an authorized administrator of Murray State's Digital Commons. For more information, please contact msu.digitalcommons@murraystate.edu.
4-H Programs: An Overview

Darrian Lee

Murray State University
Abstract

This paper will show how 4-H programs, activities, and events give youth opportunities to better members futures. 4-H has been helping community members for more than 100 years! 4-H is grounded in hands-on learning. The 4-H program allows youth to participate in a variety of program in many different areas. The main programs are Agriculture, Family and Consumer Science, Health, Communication, Leadership, Natural Resources, and Science, Engineering and Technology. In addition to a full review of 4-H programs, this paper will also inform the reader about the history of 4-H. The evidence included in this paper shows how 4-H can give youth opportunities to “To make the best better” (4-H Motto, 2018)!
# Table of Contents

Abstract                                                                 1  
What is 4-H                                                              3  
Birth of 4-H                                                            3  
4-H History in Kentucky                                                 5  
Agriculture                                                            14  
Family and Consumer Science                                             19  
Health                                                                 23  
Communication & Expressive Art                                          29  
Leadership                                                            33  
Natural Resources                                                       38  
Science, Engineering and Technology                                    42  
4-H Camps                                                              46  
Conclusion                                                            49  
References                                                            52  
What is 4-H

Young members have the opportunity to participate through 4-H; “4-H is a program for children, ages 5 to 18, who would like to experience various aspects of the world, especially in rural areas.” Young children experience 4-H through in-school and after-school programs, community and school clubs, and 4-H camps. Members have access to hands-on learning in areas such as science, agriculture, citizenship, and health. These are provided in a positive setting where guidance is given from adult members. 4-H is conducted in association with more than 100 public universities across the nation (What is 4-H, 2018).

Birth of 4-H

A. B. Graham started a youth program in Clark County, Ohio, in 1902, which is considered the birth of 4-H in the United States. The first official 4-H club was called “The Tomato Club” or the “Corn Growing Club”. In the same year, T.A. Erickson of Douglas County, Minnesota, began local agricultural after-school clubs and fairs. Jessie Field Shambaugh developed the clover pin with an H on each leaf in 1910, the four “H”s would become the base for the nation-wide pledge. The 4-H pledge was written by the chairman of the first National 4-H Camp Congress, Otis Hall. The pledge was submitted at the first Congress in 1927.

“I pledge
My **HEAD** to clearer thinking,

My **HEART** to greater loyalty,

My **HANDS** to larger service, and

My **HEALTH** to better living

For my club, my community, and my country.

After being adopted at the first congress, the pledge was changed to include “my world” in 1973 (History in 1920, 2018).

Shortly following, in 1912, the clubs were renamed to 4-H clubs (History of 4-H, 2018). In many states, a trip to Washington, D.C. was offered to state “Corn Club” winners as early as 1909. The Secretary of Agriculture granted diplomas to the winners. This began the recognition for 4-H club work and projects. After the launch of “Corn Clubs”, other clubs became popular. For example, in 1911, “Pig Clubs” began and in 1912, there were two clubs for girls: canning clubs and poultry clubs. To enlarge their program, 4-H sent personal correspondence, had college faculty visits, and sent printed circulars to schools (History of 4-H, 2018).

1912 provided a new incentive for success among the members of the 4-H boys’ clubs. Agricultural expansion leaders wanted to take advantage of this club movement, so camps were started at applicable state fairgrounds. Fair boards
paid the expenses and the Superintendent of Extension selected the boys who had excelled in their club work to attend the new camps. The National Guard supplied tents for the boys to sleep in and straw was used for comfort. About one hundred boys attended the first camp. While at camp, the boys competed for prizes by bringing in their pigs, corn, cattle, and poultry to the state fairs. At the fair in 1913, the first 4-H educational exhibit was introduced. In 1914, the passage of the Smith-Lever Act created the Cooperative Extension System at USDA and nationalized the 4-H program. The clover emblem was adopted in 1924 and 4-H clubs were formed in the same year (History in 1909-1919, 2018).

The National Institute of Food and Agriculture (NIFA) partnered with the Cooperative Extension System which is “within the U.S. Department of Agriculture (USDA)” (History in 1909-1919, 2018). “Cooperative Extension combines the expertise and resources of federal, state, and local governments and is designed to meet the need for research, knowledge and educational programs” (History in 1909-1919, 2018).

4-H History in Kentucky

In Kentucky, 3,887 boys and girls enrolled in 12 4-H projects in the year 1918. In 1920, Governor Edwin P. Morrow announced the week of December 6th to 11th as Junior Club Enrollment Week, and teachers were encouraged to support the enrollment attempt for 4-H programs. By the end of the year, 20,079
members (13,705 boys and 6,374 girls) state-wise were enrolled in 4-H programs. 4-H lead the way to inclusion by having enrolled “240 black boys and 219 black girls” (History in 1920, 2018). The 4-H State Fair Camping kicked off in the 1920’s, 38 boys and 44 girls camped in Laurel County Kentucky, and 61 boys and 43 girls camped in Daviess County Kentucky. Just the next year, in 1921, there were 22 county camps held across the state. In the same year, camps flourished and “1,793 youth and 106 adult volunteer leaders participated in camps in Ballard, McCracken, Graves, Union, Henderson, Daviess, Nelson, Muhlenberg, Christian, Warren, Barren, Hart, Laurel, Lee, Knott, Perry, Breathitt, Morgan, Owsley, Powell, Lawrence and Boyd counties” (History in 1920, 2018). At these camps, there were 6,890 visitors, according to the records” (History in 1920, 2018). After the camping program gained popularity, 4-H members began showing projects at national and county fairs. Junior Week, Stock Shows, National 4-H Club Congress, National 4-H Club Camp, and The University Scholarship Club were just the beginning of many clubs in 4-H that would develop during this time.

In the 1930’s, youth who were over the age limit of 18, but were not ready for adult work, were given the option to join the Utopia Club to continue their 4-H experience. The Utopia Club offers programs in recreation, home improvement, and in keeping home and personal accounts. Also during this time, kids who
didn’t live on farms were joining 4-H. 4-H was expanding in teaching youth members health, leadership, science and more. Membership was growing and “in 1935 almost 25,000 youth were enrolled in 4-H and 81% completed projects” (Celebrating, 2018).

The state general assembly of the 1930’s allotted $3,000 for district dairy shows. Trips to National Dairy Shows were donated to dairy club members from creameries in Cincinnati and Louisville. In 1939, the Kentucky State Baby Beef show had 597 members showing 1,086 animals and other county fair exhibits also had high attendance. For the first time in each of the 120 counties in Kentucky, 4-H club programs were active. Membership increased from 1,093 in 1938 to 42,180 members in 1939 (History in 1930, 2018).

There were two types of 4-H clubs in 1941: community Clubs and project Clubs. Community clubs were for boys and girls, and each club was modified based on the person’s interest. Project clubs were all the same and had more unity, whereas community clubs changed based on everyone’s interests.

In 1943 4-H members participated in “Feed a Fighter in ‘43” and grew “Victory Gardens” to conserve and produce food, showing that 4-H program help communities, as well as individuals The canning club helped with this program and even collected milkweed pods, scrap metal, and helped with farm labor when needed. “More inspirational, social and recreational activities can be carried out
which leads to a higher club spirit and higher ideals," says Erickson (1941). To be a "standard 4-H club" Erickson said the club had to meet these requirements:

1. "Five or more members in one club project. Additional members may represent other projects.
2. A local leader in charge who is general adviser.
3. A club organization with its own officers having charge of business meetings.
4. A program of work for the year.
5. At least six meetings during the year.
6. A judging contest during the year.
7. A demonstration team giving at least one public demonstration locally.
8. An exhibit of club work.
10. At least 60 percent of the members filing final reports”

(History 1940, 2018).

A standard club charter” was given when the first four goals were accomplished. The Achievement Seal was awarded to the club when all ten were reached.

The 1950s was an important time in history for 4-H in Kentucky. This year led to additional camps and more clubs. West Kentucky 4-H Camps were created 1950. A few years later 4-H continued expanding the camps to other areas of
Kentucky. The new J. M. Feltner 4-H Camp flourished. This lead to the first State Committee of 4-H Club Leaders composed of one woman and one man came from each of the thirteen districts. “At this first meeting, the group elected officers and a board of nine directors; they also adopted a constitution and by-laws. The committee’s purpose was to assist district committees with activities and problems” (History 1950, 2018).

During the 1950’s, after the war, there was a shortage of leadership. In 1950 there were only 7,000 leaders. This improved by 1959 with 12,500 leaders working with 4-H programs. This decade brought out new and old activities. Animal shows continued to be favored with continuous support from stockyards and other community members. There were seventeen district animal shows by the end of the decade. Tobacco shows also flourished with participation in fifteen districts. 4-H week grew into major event, having different themes each year and focusing on different issues. A new leadership training camp, called “Camp Miniwanca,” was sponsored by the Danforth Foundation of the Ralston Purina Company. There were more opportunities for black youth in the fifties. They were able to participate in 4-H Week, two different camps and a baby beef show that was very successful (History 1950, 2018).

Leaders of the 4-H program were trying to get 4-H curriculum back into schools during this decade. The superintendents and principals who approved of
4-H involvement made an effort to make the program a part of the school day. They worked to have students who took part in 4-H events to be counted “present” during school hours, since they were still learning. Some activities were moved to after-school hours so that more students and parents could get involved.

4-H finally became a career (add a year)! Agents were hired with degrees in agriculture, counseling, education, sociology and more. This lead to the 1968 Kentucky Association of Extension Agents. A new camp started construction in 1962 and was called the North Central 4-H Camp. In 1964, black and white students were desegregated. On March 15, 1968 the Kentucky Association of Extension 4-H Agents was established. Camping was a major focus in the mid-sixties. Camps were offering a wide variety of activities other than agriculture. New opportunities were offered: “camping was available for older 4-H’ers, the camp counselor system was initiated, agents became involved in planning camping programs’ special camps in various subjects were possible, leader training was offered at camps, camp committees were named for each camp, swimming was in pools instead of rivers, new craft rooms provided better opportunities for craft activities” (History 1960, 2018). Urban 4-H programming and the Food and Nutrition education program were expanded as well.
The 70's was the decade for expansion into urban areas. 4-H was all over the media and their slogan was, “4-H: It’s Where You’re At.” In the late 70's, all traditional programs increased in participation. Citizenship projects became popular with educating the youth on how governments and bicycle safety. In 1976, another camp was added and named The Diederich 4-H Camp. Efforts were made to improve career exploration projects: workshops, games, on-site job visits, and practice quizzes were offered to ready the participants for the workforce. The community was very involved and eager to help with 4-H enrollment reaching 254,000 by 1979 (History 1970, 2018).

The 75th birthday of Kentucky 4-H was celebrated in 1984. In the 80’s, the Food Nutrition Program really gained popularity. This lead to day camps that taught about food and nutrition. Leadership was a key factor in 4-H, 13 teen leadership workshops were held and over 700 teens participated. Teens also served by developing community service projects that helped the environment and local elders. Computer classes were added, with equipment being donated by Radio Shack. Five new clubs were created about service organizations and made new opportunities for learning possible.

4-H was reaching out to expand and “4-H or programs similar to 4-H have been established in over 80 countries around the world.” (NEED CITATION) A study was done about 4-H members and the organization’s relation to farmers
with over one fourth of participants being farmers. “Kentucky ranked the highest in the nation in expanded food and nutrition, industrial arts, community development, citizenship, international study, energy and health programs. Kentucky ranked in the top five states in communication skills--public speaking, graphic arts and displays, photography and computer study” (History 1980, 2018).

4-H material were used in classrooms in the mid-1990’s. The material met all criteria needed to be taught in schools as a part of the curriculum. The first required certification for volunteers began with the onset of 4-H Shooting Sports. Of course, safety was a major concern. In 1992, 4-H was bestowed the honor of being a part of Kentucky's Bicentennial Celebration. The 4-H organization wanted to reach as many youth as possible during this time. They started an effort to have 4-H offered on every United States Army base on a global level. In Kentucky, 4-H clubs were established at Ft. Knox and Ft. Campbell. The Reality Store was introduced in 1997 in Mercer County. This gave youth a chance to role play as an adult with an assigned job; and to provide for a family. This gave them a glimpse of what adulthood is like, and how important a good career is to a promising future (History 1990, 2018).

In 2001, graduate-level courses were offered in Volunteer Administration through the University of Kentucky. The 100th Anniversary of 4-H in the United
States happened in 2002. This was a major milestone for the 4-H organization. In recognition of the celebration, ideas were heard to improve 4-H nationwide. These ideas were then presented to President George Bush. Here are the results of the Kentucky Statewide Conversation:

1. Youth need to be involved in the planning and decision-making processes of school boards and of state and local governments.

2. Create youth centers (with homework help and hotlines available) and safe havens for vulnerable youth.

3. Businesses in both public and private sectors should offer volunteer time off during business hours to their employees.

4. Educate youth about the responsibilities, duties, and rights of citizens in a community. Establish a cabinet level position for youth development.

5. Make community service a component of public high school curricula.

6. Parenting and child development classes should be offered to parents to help them build skills conducive to positive youth development and parental involvement.” (History 2000, 2018)

In 2005 the American Camp Association officially recognized Kentucky 4-H Camps. For younger teens, a new program was started called Kentucky Youth Summit. 4-H offered youth the opportunity to grow and learn about life skills that are not always learned in school. Some of these skills were: making bread,
curing a ham, choosing to eat healthy, growing your own vegetables, and hatching an egg. Other skills were work related: learning how to handle money wisely, shadowing an adult worker, giving a speech, or even starting a babysitting business (History 2000, 2018).

**Agriculture**

Agriculture is a major part of 4-H. Activities and projects are available in the areas of beef cattle, goats, sheep, swine, food science, equine, and plant/soil science. These activities are all experience-rich and help youth connect by interest. There are so many projects and activities associated with animal and food sciences.

The well known Beef Cattle Project teaches a 4-H member how to raise a heifer. There is another project called the Market Beef Project where the member raises a heifer during the growing phase until it reaches a goal weight. "Through beef cattle projects youth will learn about selection and evaluation, nutrition and feeding, health and daily care, reproduction, marketing, and much more. Youth learn to accept responsibility, to value hard work, think critically, make decisions, and communicate" (Beef Projects, 2018).

Members also have the chance to participate in a Meat Goat Breeding Project where they raise a doe kid. Or they could care for the doe kid through the growing phase with the market meat goat project (Goat Projects, 2018).
These projects are also available for sheep. The most popular project involving sheep is called the Sheep Breeding Project, in which the 4-H member raises a ewe lamb and cares for it though a portion of the life cycle. Or, like the other projects, students can raise the through the growing phase, this project is called the Market Lamb Project. The sheep projects are great for younger kids (Sheep Projects, 2018).

There are three different projects 4-H members can choose to partake in with the rabbit program. They can choose to raise the rabbit for a pet and learn how to care for it, they can choose to breed the rabbit and raise it for its features, or they can choose to raise the rabbit for marketing and sell it for meat (Rabbit, 2018).

Lastly, they can choose to raise a pig to market weight of 270 pounds then sell, which is the Market Pig Project. Youth can also start with a guilt and raise her through farrowing and gestation, this is called the Breeding Pig Project (Swine Projects, 2018).

The Kentucky 4-H Horse Program offers another choice for animal care. There are six different organizations involving horses: the rodeo team, the saddle seat team, the equestrian team, the dressage and eventing team, the horse racing club, and research in equine and agriculture disciplines. Alongside all of these clubs and teams, 4-H members are also offered participation in horse
shows and contests. 4-H also offers educational programs, such as the Equine Science and Management Program (Equine, 2018).

Beyond farm animals; there is also a Dog Program. In this program the member learns about dog training, health, and care. There is a special “4-H Camp Canine” that they can participate in, where they learn a lot about their animal. In the beginning, the member learns about the dog’s body parts, diseases, and then creates a dog care plan and a training plan. When they are ready to move to the next level, they learn more about the dog. They learn about dog breeds, showmanship, and the origin of dogs. At the end of this level they participate in a dog show and create a dog care budget. For the advanced level, participants learn how to take vital signs, lead a training class, and conduct a dog costume contest. Other state events include: dog logo contest, state dog show, dog bowl and skillathon, dog poster, and a dog volunteer certification (Fact Sheet Dog, 2018).

If animals are not an interest to the participant, there is a Food Science Club. This club gets students involved in philanthropic activities. 4-H members can compete in national and regional events. One of the major meetings in this area is the Bluegrass and National Institute of Food Technologists Meetings. To educate the youth on food science, chapter meetings are held. The Farm to Campus Project teaches members about local meats and the importance of
freshness. 4-H members can even attend meat cutting school. There is also the widely known 4-H Country Ham Project that allows members to get their ham judged along with a speech about their project. Members learn about the heritage of country ham and how that correlates with Kentucky history. Learning can also take place at the UK Butcher Shop or at Master Cattlemen (Food Science Clubs, 2018).

The Soil and Science Program offers members the chance to grow, and compete in crop projects. There are many opportunities to participate in this program. At the Kentucky State Fair, there are five ways to compete: 4-H Land Judging, 4-H Crop Project, 4-H Tobacco Exhibit, 4-H Horticulture Contest, and 4-H Horticulture and Plant Science. Other than the State Fair, there are activities that members can participate in during other times during a year. There is a Rain Drop and Erosion Activity, as well as an Edible Compost Activity (Plant and Soil Science, 2018).

There are also opportunities to “Bee an Ambassador”. While in this program, members learn about pollination and how to care for bees. In the 4-H State Fair Project, youth raise bees and harvest their own honey. A participant could also write an essay about beekeeping for the Annual Essay Contest. If members still want to help pollinators, the applicable county could build a Monarch Butterfly Conservation. Building a conservation would help scientist
track population and help with the decreases in monarch butterflies (Bee Ambassador, 2018).

To help fund these projects, agents can apply for the Agriculture Mini-Grant Program. This program “is for county and club level projects and activities that are agriculture-related. Grants will be provided for, but not limited to – pilot and existing programs, new innovative projects, purchase of curriculum, educational tools/equipment, and volunteer training. The grants will require a dollar for dollar cash match, in-kind match will not be accepted” (Agriculture Mini-Grants, 2018).

There was a study on 4-H member knowledge and perception of agriculture. The study’s objectives were:

“1) to assess the level of agricultural knowledge among 4-H members;

2) to assess the level of positive perceptions toward a agriculture among 4-H members; and,

3) to describe the demographic variables of 4-H members that may influence their agricultural literacy” (Journal of Agriculture Education, 1995).

The study found that, “4-H members were most knowledgeable about the Natural Resources and Marketing of Agricultural Products concept areas, whereas the lowest group mean knowledge score was the Plant concept area. The 4-H
members group produced lower (most positive) perception mean scores for the Natural Resources and Animal Science concept areas, whereas the highest (least positive) score was in the Policy concept area” (Journal of Agriculture Education, 1995).

**Family & Consumer Science**

In the Family and Consumer Science Program, members learn clothing skills, nurturing skills, money management, health skills, home skills and workforce skills. At the Kentucky State Fair, the second Saturday is for 4-H projects related to Family and Consumer Sciences. There is an opportunity to volunteer in Cloverville, at the State Fair. 4-H members can “give a food demonstration from the Cloverville stage or work on their own FCS project where fair-goers can watch and ask questions” (Family & Consumer Science Day, 2018).

One program is titled Clothing and Textiles. In this program members are able to learn about fashion, learn how to sew, and learn needlework. This program helps participants learn what is needed for a complete wardrobe. Deeming that fashion is important for self-image and body image, this area was considered to be important. Project Fashion Forward allows members to learn about themself, learn about body image, and learn about color and how it relates to personal style. If the member is interested in fashion, there are a few events
they can attend. There is the Kentucky 4-H Fashion Revue, the Kentucky 4-H Fashion Leadership Board, Communications Day, and Kentucky 4-H Achievement (Clothing and Textiles, 2018).

Throughout these programs/opportunities, there are a lot of chances to use needles or hooks. Members can learn knitting, embroidery, quilting, crochet, or lacework (tatting). “Throughout history, needlework has served as a means of relaxation, stress reduction, creative expression and increased manual dexterity” (Needlework, 2018). If the member is confident in their needlework, they can compete in the Kentucky State Fair in Needlework. Sewing is another way youth can show their creativity. Sewing can be for boys or girls; it teaches construction and engineering in a real-world context. Just like needlework, sewing can be a great outlet for stress relief. There is also a state fair division for sewing. There is a Kentucky 4-H Sewing Skill-A-Thon and a Kentucky 4-H Sewing Project (Sewing, 2018).

Family life is also very important to learn about in the 4-H program. Some of the curriculum involves Fathers Reading Every Day and Kentucky 4-H Babysitting Basics; 4 Fun and 4 Profit. Fathers Reading Every Day (FRED) is a four-week program that encourages and improves the implications of fathers reading with their children. In FRED, men/boys learn about child development, safety, basic care, and the business of babysitting. Some events that take place
is the Family and Consumer Sciences Day at the Kentucky State Fair, 4-H speeches, and 4-H demonstrations (Child-care, 2018). Kentucky 4-H Babysitting basics teach youth members about: the basic care of infants and children, child development, emotional development, caring for a sick or injured child, safety issues, and the business of babysitting (Child-care, 2018).

Consumer and Financial Education informs members on how to budget, manage money, save, and how to efficiently use a credit card. They can practice what they learned through communication, citizenship, and leadership activities. Through communication events, a member can give a speech about advertising techniques. During citizenship events, a student can volunteer for a charity or fundraiser. Lastly, through leadership events, participants can put all their knowledge to use and apply to be the 4-H club treasurer (Fact Sheet Consumer, 2018). They can compete at the State Fair in Consumer and Financial Ed. categories, or participate in the Sciences Day at the state fair.

Home Environment is for members who love to organize, draw, decorate, and plan. At the beginning of the program, members create a design plan as well as learn about good manners, organization, and the use of energy. The members can participate in the 4-H Energy Project where they can become home energy detectives. This program teaches youth to gather facts and information to help their home become more energy efficient. After being in the program a while,
members develop writing skills (thank you cards), design skills and learn how to draw a floor plan. Members can stay in the program to the advanced level. In this level, they learn to apply the principles of design, learn more about floorplans, and learn more maker skills (home environment, 2018). Through the home environment program, another program was launched: “Manners for the Real-World. In this program they learn:

“1. Meeting and Greeting
2. Cell Savvy
3. Netiquette
4. The “Write” Touch
5. Set the Table
6. Mealtime Manners
7. Tipping Etiquette
8. Job Seeking Etiquette”
(Manners, 2018)

Workforce Preparation prepares members for an employable future. 4-H has multiple careers to explore, “Teacher...plumber...doctor...engineer...day care worker...salesperson...What type of work would you like to do when you grow up? 4-H gives you opportunities to explore a variety of interests through projects and by shadowing adults at work (Workforce, 2018).” They teach youth about the
requirements of specific jobs, according to interest. They offer many projects that allow members to explore work opportunities, resume skills, interview skills, and other topics that would help the student. Each program has different levels of learning according to the age of the student (Workforce, 2018). 4-H also teaches about entrepreneurship. They can give step-by-step guidance on how to start your own business (Entrepreneurship, 2018).

Health

The Health Program focuses not only on food and nutrition, but physical, mental, emotional, and environmental health. 4-H places emphasis on “Health, the fourth “H” in 4-H Youth Development” (Health, 2018). According to the organization, health is a global issue and needs to be taught.

Physical fitness is so important that in the month of February counties, “can offer water at four meetings, offer fruits and vegetables at four meetings and include 15 minutes of physical activity at four meetings and then fill out the online tracker” (Health Month, 2018). Some programs involving fitness include: Jump into Food and Fitness, Dancefit, Steps to a Healthy Teen Program, and Centering On Me for meditation and controlled breathing. There is also the Clover Cat Way to Wellness Program, this teaches youth and volunteers how to activate their life, take time to be well, and to choose foods for a healthy diet (The Clover Cat, 2018). The 4-H Dancefit program, teaches: heart health, flexibility,
balance, strength, endurance, and calorie burning. Dancing is a fun way to get active and motivates youth to have fun and be healthy. The 4-H Dancefit packet provides numerous examples of lessons and activities involving dance (4-H Dancefit, 2014). 4-H offers three adventure programs to get youth moving. There is 4-H Fishing, Bicycle, and Outdoor Adventures. These programs teach members how to do each activity and ideas for adventures involving the specific skill (Physical Fitness, 2018).

The Food and Nutrition program “fosters mastery by learning to read a recipe, a variety of ways to prepare food, the importance of making healthier food choices, how to preserve foods safely, belonging by being part of a club or group, independence by learning skills that can be used throughout life, and generosity by sharing what they learn with others” (Food and Nutrition, 2018). There is a 4-H cooking series for ages nine to eighteen. Middle or high school students may participate in “What’s on Your Plate?”, which teaches them about baking, portions, and how to be a food scientist. Competitions include: Chicken and Turkey Barbeque Project, Egg Preparation Demonstration, and food Preparation and food Preservation at the state level. The final test is the Kentucky 4-H Culinary Challenge. This competition is a team event where students show off their skills (Food and Nutrition, 2018).
Nutrition is an important part of being healthy. The Healthy Teen Program gives participants steps to make healthier choices. There are six classes, each class teaches something different.

“Class 1: Activity 9 Building a Nutrition Plan

Class 2: Activity 2 Getting a Handle on Nutrition

- Pass the Bacon Game with Nutrients and Definitions
- Smoothie Competition

Class 3: Activity 3 The Balancing Act

- Portion Suitcase
- TR Challenge (Iron Chef)

Class 4: Activity 4 Label Lingo

Class 5: Activity 5 Importance of Hydration: Avoiding Energy Drinks

Class 6: Activity 10 In the Zone

- Review Goals and have a healthy potluck
- Community Mapping Activity” (Healthy Teen Plan, 2018).

In an interview with Wanda Paris, a local Kentucky 4-H agent, she stated that nutrition and physical activity clubs are offered monthly in 4th and 5th grade classrooms. Also incorporated into every after-school club is a healthy snack to start off the afternoon. Mrs. Paris also said that cooking and nutrition classes are offered at the county office monthly (Wanda Paris, 2018).
Another program that allows youth members to learn about nutrition is the “Plate it Up, Kentucky Proud” Program. This program is a partnership project between the University of Kentucky Cooperative Extension Service, the Kentucky Department of Agriculture and the University of Kentucky School of Human Environmental Sciences. This project provides healthy, great tasting recipes using Kentucky Proud products for the people of Kentucky” (Plate It, 2018).

Bullying is a growing issue. 4-H has a State Teen Council Bullying Program that “raises awareness about bullying and how it affects individuals on a daily basis” (Bullying, 2018). This program defines bullying and gives facts and statistics. These facts can help youth recognize a problem and get help. The statistics help members understand the importance of their actions and words. Other programs include Be SAFE: Safe, Affirming and Fair Environments; Bullying 101, and the Safe and Caring Schools Resource Guides grades 3-8 (Bullying, 2018).

Kids safety is always the highest priority. 4-H offers a program called “Code Name: Home Alone” (Safety, 2018). This program teaches youth to evaluate themselves to know if they are ready to stay home alone. Participation teaches students how to be prepared for bad weather and home fire safety. The program also teaches youth about first aid, computer/internet safety and kitchen
safety. All of these lessons are very valuable to a young person’s life (Home Alone, 2018).

Many other healthy living programs are offered: Food Smart Families, Healthy Habits, and Health Rocks!®. Food Smart Families are for families that are receiving SNAP or WIC benefits. This program teaches the family how to budget, prepare, shop and plan healthy meals. The impact of Food Smart Families:

- “Launched in 2014 with 5 pilot states reaching more than 13,200 youth and impacting more than 49,000 family members: Delaware, Idaho, Illinois, Nebraska and Washington
- Expanding in 2015 to 13 states to include: Arizona, California, Florida, Louisiana, Mississippi, New York, Tennessee and Texas
- More than 400 youth trained to be Teens as Teachers, serving as role models and mentors
- Positive changes in youth behavior as a result of 4-H Food Smart families
  - 90 percent of youth participants now think being active is fun and good for fitness
  - 89 percent now encourage their families to eat meals together
  - 87 percent said their families have purchased healthier foods
  - 86 percent now eat fruit for a snack over unhealthier options” (Food Smart Families, 2018).

Healthy Habits expanded in 2016 to 26 states in order “to mobilize underserved youth to take action around nutritional deficiencies, healthy food choices, and physical activity in grades 4-12. Grants ranging from $35,000 to
$65,000 were awarded to states, with the goal to reach at least 100,000 youth and family members” (Youth Voice, 2018). Some of the goals of the Healthy Habits program is to:

- “Impact under-served/at-risk youth and their families with quality healthy living education and learning opportunities
- Improve dietary choices and increase physical fitness
- Build an appreciation for healthy foods
- Encourage families to eat one meal together each day
- Share information regarding locally available healthy living resources” (Youth Voice, 2018).

Health Rocks!® is a series that teaches members about healthy living and the risks of not living healthy. “Health Rocks!® is curricula for a healthy living program targeted at young people ages 8 to 14. Health Rocks!® also provides health information regarding norms and consequences of youth tobacco, alcohol, and drug usage” (Health Rocks!®, 2018). The goals for this program are to:

- “Reduce youth smoking and tobacco use
- Help youth build life skills that lead to healthy lifestyle choices with special emphasis on youth smoking and tobacco use prevention
- Help youth understand influences and health consequences of tobacco, drug, and alcohol use to make healthy choices
- Engage youth and adults in partnership to develop and implement community strategies that promote healthy lifestyle choices
- Build positive, enduring relationships with youth involved as full partners through widely varying “communities of interest” to address youth risk behaviors” (Health Rocks!®, 2018).
The Health Rocks!® curriculum was very successful during the 2014-2015 academic year. Over 90% of youth disapproved of underage tobacco use, disapproved of risky behavior, and demonstrated high levels of social and emotional thriving (Health Rocks!®, 2018).

**Communication & Expressive Art**

4-H is well known for speeches and demonstrations. Communication skills are a vital key to success. The communications program offers “a variety of approaches and techniques to improving youth skills, including but not limited to project books that involved personal evaluation and reflection of skills, competitive speaking and demonstrations, extemporaneous speaking, expression through art, and personal/professional relationship activities” (Communication, 2018).

Performing Arts is for youth who love music, dance, or acting. With the 4-H music Project, new members learn how to interview family about favored music, learn how to perform in different places, learn about how location affects your sound, and even create plans for their own performance and performs as planned. As they enter second level of the project, they study music and a composer or performer, music genres outside of their norm, and participants survey a radio station. In the advanced level, members write their own piece of music, compare and contrast different arrangements, and compose lyrics for an existing melody (Music Project, 2018).
The 4-H Drama Project begins by helping members learn to communicate using body language, tone and inflection, learns how to create a monologue, and plans and designs a theater set. During the second level, youth understands body language, creates a story through pantomime, and learns about stage positions. While expanding abilities in level three, students learn to improvise, direct scenes in different genres and direct a one act play (Drama Project, 2018). There is also an Expressive Arts Day at the Kentucky State Fair that members can attend. Another way they can participate is in the Kentucky 4-H Performing Arts Troupe (Performing Arts, 2018). The Kentucky 4-H Performing Arts Troupe is a great opportunity for outstanding high school students who “love to sing and perform. Members will attend a music camp, perform at various 4-H State level events, learn about careers related to the performing arts and lead a Performing Arts workshop for middle school 4-H members. The troupe will be made of 16 performers and 2 Technical Staff (Stage, Sound & Lighting)” (Leadership Board, 2018).

Visual Arts is not only drawing and painting, but also photography. By starting a project visual arts, a member can create a portfolio and design an idea book, interview a local artist, find places to share your art, and experiment with line and color. During the second level, participants can compare different types of media, experiment with line, shape, color, texture, and space, and even
arrange an art trip to a local art fair. In final phase, members can understand and apply media techniques and processes, members can understand visual art in relationship to history and culture, and they can enter their work in a local exhibition (Visual Arts Project, 2018).

While participating in the 4-H Photography Project, youth learn about their cameras and how they work, play with various lighting techniques, study photo composition, and learns to evaluate photos. In the intermediate level, youth can use shutter speeds and t-stops, manipulate light using flash techniques, and take candid photos to capture a moment. During the advanced level, members use filters and special film, symmetry, shape, pattern, and texture, as well as specialized equipment and advance techniques (Photography Project, 2018).

Some events that members can go to is the 4-H Filmfest, the Kentucky State Fair Photography Exhibits, and the Kentucky State Fair Arts Exhibits (Visual Arts, 2018).

Public Speaking plays a major role in all projects and helps members become a better communicator. “When a former 4-H member is asked, "What did you gain through 4-H that has made the most impact on your career success?" the skill most often mentioned is public speaking” (Communications Day, 2018).

While working on the first level, youth learn how to improve listening skills, communicate through music, symbols, and codes, understand word meanings,
and how to communicate emotions. During the next level members learn how to present themselves, control emotions, plan and write a speech, and present the speech to an audience. During the last level, youth learn how to connect with others, make a persuasive speech, perform in public, write a resume and cover letter, and interview for a job (Communication Project, 2018). Some events that members can participate in include local county/district Speech and Demonstration Contests, the Kentucky 4-H State Communications Day, and the Kentucky 4-H Written Communications Contest (Public Speaking, 2018). During an interview with a local 4-H agent, she said that a 4-H speech is required in every 4th and 5th grade classroom. The speeches are counted for a grade and students can earn extra credit by going to the county contest. Mrs. Paris said other speech opportunities such as: being elected into office and giving a campaign speech, attend an officer training and, in the County Ham Project, a 3-5 minute speech is given at the State Fair (Wanda Paris, 2018).

4-H speech and demonstrations are a well known projects statewide. These programs offer young people “the opportunity to develop important life skills and receive a sense of accomplishment in a job well done” (Empower Young People, 2018). As mentioned before, these programs allow members to: deliver a speech, give a banquet address, lead a community service project, demonstrate skills associated with project work or show a younger member how
to do a project-related task” (Empower Young People, 2018). 4-H speeches are usually “3 to 5 minutes long for junior 4-H members (9-13 years old) and 5 to 7 minutes for senior 4-H members (14-18 years old). No visual aids may be used” (Speeches, 2018).

If youth members do not want to present a speech, he/she can participate by completing a public demonstration. Demonstrations are “a method used to communicate an idea by showing and telling. Demonstrations should be 5 to 15 minutes long for both junior and senior 4-H members. Visual aids are used to enhance the presentation” (Demonstrations, 2018).

**Leadership**

Leadership has many activities and programs to get youth involved in leadership development. Activities that deal “with leadership development vary greatly, but are all focused on improving the quality aspects of a young leader through reflection, explanation of leadership principle, and personal experiences. Events for leadership and youth development range from the local to national level, and cover both specific areas of concern and general leadership skills” (Leadership, 2018).

During the initial level of leadership, youth develop and explore: “individual strengths, personal sense of leadership, what makes an impactful leader, what qualities do they want to possess as a leader, and goals of future leadership
involvement” (Leadership Project, 2018). During the next level, youth search for a mentor with similar ideals and goals, apply skill sets, and assume leadership opportunities in their clubs and community. The last level is meant to assist member in expanding horizons through community leadership. In this level youth mentor younger 4-H members, serve in a leadership position on the district or state level, and identify community needs along with developing ways to address those needs (Leadership Project, 2018).

There are a wide variety of events and activities associated with the Leadership Program. The 4-H Southern Region Teen Leadership Conference, Issues Conference, 4-H Leadership Bootcamp, 4-H Teen Summit, and lastly the 4-H Teen Conference. At the 4-H Teen Conference, youth stay on the University of Kentucky campus for several days. While at the conference “teens develop valuable life skills, leadership competencies and communication abilities” (Teen Conference, 2018). The Kentucky 4-H Teen Conference objectives include: develop leadership and teamwork skills, improve communication skills, foster civic engagement, and to expand knowledge. Other objectives are skills related to 4-H core content areas, gain club, county and state 4-H program skills. The main goal is to have fun, create a sense of belonging, expand social skills through networking, develop youth-adult partnerships, and become acquainted
with the University of Kentucky to aid in college and career readiness of Kentucky 4-H'ers (Teen Conference, 2018).

The Southern Region Teen Leadership Conference (SRTLC) is a multi-state conference that empowers and inspires 4-H teens and adults to make a positive change across the southern region. This conference brings together 400 youth each year and creates friendships along with strengthening the teens leadership skills (SRTLC, 2018).

4-H Summit is all about developing citizenship, leadership, and communication skills. This program encourages new friendships and helps youth belong to a peer group. Dynamic workshops are taught and service learning experiences encourage generosity. This program is a three day, two night conference. Teens practice independent living in a group situation. The 2017 4-H Teen Summit “was a success due to our dedicated 4-H professionals and volunteers from across the state. Kentucky 4-H welcomed 488 middle school youth to 4-H Teen Summit over three weekends. There were 20 adult volunteers, 72 teen volunteers from 86 Kentucky counties to participate in Teen Summit 2017” (Summit, 2018).

Through participation in leadership activities during the Teen Summit, youth:

1. “Develop confidence in their leadership potential and their own sense of identity.”
2. Improve their self-esteem.

3. Enhance their communication skill is sharing, reflecting and discussion.

4. Understand the importance of diversity and improves their ability to relate to others.

5. Learn effective decision making methods and experience problem-solving situations.

6. Learn group social skills” (Leadership, 2018).

Alongside leadership is citizenship. Teens need to be active citizens in their local community, and in the state. This program teaches teens to learn by doing and to reflect on their learning. Youth learn the how to plan, research, and conduct a service learning project. There is also an opportunity for global education. “Global Educational opportunities allow youth to experience life outside of their community or share their culture with other students” (Global Education, 2018). Some events that go with these programs are the Day of service, Digital Citizenship, the Inter/Intra State Exchange Programs, and International Exchange Programs.

Another opportunity for youth members is the Grow True Leaders Campaign. The National 4-H Council hosted a True Leaders Rally on April 12, 2016 to begin “Grow True Leaders Week” (Grow True Leaders, 2018). In a 4-H Public Service Announcement video it says, “You’re going to need me, you’re
going to need us, all of us” (Grow True Leaders, 2018). It goes on to say you’re going to need our help with: technical, math, problem solving, organizational and engineering skills; you’re going to need help with water, air and food. The last part says “you’re going to need the next generation of leaders to face the challenges the future brings, and we promise to be there when you need us” (Grow True Leaders, 2018).

Award winning singer, songwriter, musician, and Georgia 4-H alum Jennifer Nettles talks about the impact that 4-H made on her life. Mrs. Nettles said that 4-H gave her the opportunity to travel and perform at National Congress. She said without 4-H her life would be different because she would not of had the opportunities 4-H gave to her (Grow True Leaders, 2018).

As research shows, leadership education builds several important assets in Kentucky’s youth and provides critical elements of youth development (Search Institute, 2004; Pittman, Irby & Ferber, 2001). The fewer assets young people have, the more likely they are to engage in negative behaviors (Benson, 1997; Eccles & Gootman, 2002). The more assets that are provided to youth, the more likely they are to exhibit positive behaviors. Strong leadership and decision making skills are essential assets in helping shape a 4-H member into a responsible adult (Jones, n.d.; leadership, 2018).
Natural Resources

4-H members participate in hands-on experiences and activities that appreciate Kentucky’s natural resources, this is the Natural Resources Program. There are many different activities and programs associated with natural resources: “environmental science, entomology, forestry, geology, soils, water, and wildlife and shooting sports” (Natural Resources, 2018).

The Environmental Science Program teaches youth about native wildlife, tree identification, and many other topics. Youth can participate in a stream study and go on a bird-watching hike. During the beginning of the program, youth members go on a nature hike, create a leaf collection, learn about minerals, fossils and rocks, and learn how to use a water testing kit. In the intermediate level, members learn to take tree measurements, create a rock collection, plant native plants, and learn about the properties and classification of soils. During the last level, youth participate in a citizen science project, install a rain barrel, create a wildlife habitat garden and lead a nature hike (Natural Resources Project, 2018).

Entomology is for those who love learning about insects. Members can build a collection competition at the county or state fair. A new option is to have a virtual insect collection using macro photography. Youth members can learn about insects, spiders, centipedes, millipedes, harvestman (daddy-long-legs),
scorpions, mites and ticks, sowbugs (roly-polies), and crayfish (Entomology, 2018). As mentioned before, there is the 4-H Bee Ambassador Program which allows youth to raise and care for bees. Youth can learn more about insects at Entomology Camp. There is also more about insects specific to Kentucky and how to care and feed for ones in captivity. Youth can even learn about what bugs can be eaten as food (KY Bugs, 2018). Another program offered is the Entomology Leadership Program where high school students endure the outdoors in a week-long insect investigation (Entomology Program, 2018).

In the 4-H Forestry Program, youth learn all about the environment; “From identifying trees to learning why leaves change colors, from the tree in the front yard to the entire forest, the 4-H Forestry Projects allow youth to learn in depth about trees and the environments that they live” (Forestry, 2018). Members can participate in leaf collection and the tree planting programs. Other activities include, “Kentucky 4-H Forestry Project, Planting Trees, 4 H Forestry Project: Introducing Yourself to Trees, What is Forestry?, Tree Tips, Youth Opportunities in Forestry Education, Tree Measurements - Using a Biltmore Stick, Compass & Pacing” (Forestry, 2018). Planting trees “make a tremendous difference in our lives and the environment including improving air quality by producing oxygen, providing shade around homes and buildings which reduces the need for
air-conditioning, generating jobs and raw materials, providing food and shelter for wildlife and increasing property values" (Tree Planting, 2018).

The Geology Program offers information on rocks, minerals, and fossil collections. Members can participate in the 4-H Geology Project where participants learn about geological-rich places to visit in Kentucky, learn about rock identification, and can collect & learn the difference between minerals and rocks (Extension, 2018). Another opportunity is Project Underground Grades K-12. This project is about karst topography and the needs of karst resources. Karst is a vital resource it is “a land area that includes sinkholes springs, sinking streams and caves. This landscape features underground streams and aquifers some communities use for drinking water. Approximately 20% of the U.S. is composed of karst topography" (Karst, 2018). There is also a soil science program that offers a variety of projects, such as the Raindrop and Erosion Activity, as well as the 4-H Land Judging Project (Soil Science, 2018).

The Water Science Program gives 4-Hers “experiences that foster an increased understanding and appreciation for Kentucky's water resources, watersheds, and water health” (Water Science Program, 2018). As mentioned before, youth members can learn how to use a water testing kit and identify aquatic insects. Members can also participate in a stream study, organize a stream clean-up event, and even lead their own stream study (Natural Resources
Project, 2018). Other activities include the 40 Gallon Challenge Water Conservation Pledge, Nested Watersheds Activity, and the Rain Drop Activity. The month of May is Kentucky Water Awareness.

The Wildlife Program offers youth the opportunity to appreciate and understand Kentucky’s wildlife resources. One project members can participate in is Project WILD. This project is for K to 12th grade students and is wildlife-focused conservation education. “Project WILD is one of the most widely-used conservation and environmental education programs among educators of students in kindergarten through high school” (Project WILD, 2018). Project WILD’s goal is to develop awareness, skills, commitment, and knowledge through its training workshops. Project WILD connects “students and wildlife through its mission to provide wildlife-based conservation and environmental education that fosters responsible actions toward wildlife and related natural resources” (Project WILD, 2018). There are also three other Project WILD’s: Project WILD Aquatic, Project Flying WILD, and Project Growing up WILD.

The Shooting Sports Program for youth ages 9 to 18. In this club, members learn how to handle and shoot firearms safely, compete in various events, learn youth development, and learn leadership and responsibility through fun activities (Shooting Sports, 2018). Training is offered in “Shotgun (12 and 20 gauge or smaller), Rifle (.22 cal. Bolt action, Air and BB), Pistol (Air and .22 cal.),
Muzzleloader (Rifle and Pistol), Archery (Compound Bare and Recurve, Bow Hunter and Target), and Hunters Challenge” (Shooting Sports, 2018). A Shooting Sports Camp is offered to youth ages 9 to 13. While at camp, “each camper will learn responsible and safe use of firearms and how to shoot in the six disciplines of the shooting sports program” (Shooting Camp, 2018).

Science, Engineering and Technology

One of the areas of focus for the Kentucky 4-H Program is Science, Engineering, and Technology (SET) Program. There are a variety of programs available within this topic - “in aerospace and rocketry, biotechnology, energy, electronics, robotics, and global positioning systems (GPS) and geographical information systems (GIS)” (SET, 2018). One of Kentucky’s 4-H youth development initiatives is “engaging in discovery, exploration, and understanding in science, engineering and technology” (Initiatives, 2018). One article says that, “4-H science programs, which are inclusive of science, engineering, technology, and applied mathematics, engage nearly five million youth annually in hands-on experiences that improve their knowledge and science skills in areas that are essential in the 21st century” (Journal of Youth Development, 2012).

The Aerospace and Rocketry Program offers rocket design, flight planning, drone piloting and more. “Belonging by learning to work as a team to design, build and fly rockets, drones and other projects; Independence by helping
develop problem solving and critical thinking skills; and Generosity by allowing youth to help others develop their own skills related to the aerospace industry” (Aerospace-Rocketry, 2018). Curriculum is offered for grades K to 12 on educating youth about rocket science. This material has lessons that “meet National Science Standards and teach motion, velocity, and acceleration through inquiry and measurement. The material begins with elementary level activities with simple air launched straw rockets, moves into water bottle rockets and concludes with NAR model rockets and high school level exercises” (Educational Resources, 2018). There is a guide produced by NAR and NASA through the NASA explorers institute and contains “5 progressive rocketry activities designed for 4-H Clubs, Boy and Girl Scouts, after-school programs, and other informal education venues” (Educational Resources, 2018). If youth members want to participate in an activity related to aerospace, there is the Team America Rocketry Challenge (Aerospace Industries Association) (Aerospace-Rocketry, 2018). Another opportunity to get youth involved and educated is a partnership with 4-H and NAR. “The purpose of this partnership is to get more kids to fly rockets and form rocket clubs which will lead to more TARC teams, more people joining NAR and more kids becoming scientists and engineer” (4-H Partnership, 2018).
The Biotechnology Program gets youth to think critically, problem-solve, and enhances development observation. Youth members also learn “elonging by teaching youth to work in a group setting to analyze and report data and results; Independence by teaching youth to observe situations and develop conclusions based on those observations; and Generosity by allowing them to teach others what they have learned through these processes” (Biotechnology, 2018). Kentucky 4-H is still working on bringing education information and events to the Biotechnology Program. The close state of Illinois has a Biotechnology Curriculum Kit that teaches “educational, hands-on materials that can enhance a lesson plan and give students a fun way to learn” (Bio. Curriculum, 2018). This curriculum is free to use and available to anyone. The curriculum is rich in information and has six chapters - The Cell, What is DNA?, Inherited Traits, Biotechnology and Gene Splicing, DNA Extraction, and Next Steps in Biotechnology” (Bio. Curriculum, 2018).

The Energy and Electricity Program offers youth members the chance “to learn about circuits, magnetism, motors and more while applying hands on skills such as wiring, soldering and reading and following diagrams for circuits” (Electricity, 2018). This program teaches participants about electronics and careers related to electricity. Youth members are able to solve real-world problems and practice what they have learned (Electricity, 2018). The Kentucky
State Fair 4-H Electric Project is a great way for members to demonstrate their skills.

The Robotics Program teaches youth members to think about and learn the programming process, learn skills in the design and assembly of robotic components, and skills involved in the Engineering Design Process (Robotics, 2018). The 4-H website offers resources and books that teach robotics curriculums:

1. National 4-H Junk Drawer Robotics Curriculum (4-H Mall)
2. National 4-H Robotics with EV3 Curriculum (4-H Mall)
3. National 4-H Robotics Kits and Resources (4-H Mall)
4. Classroom Activities for the Busy Teacher: EV3 Resource Text (pdf or Amazon)
5. USFIRST website; FIRST LEGO League (FLL), FIRST Tech Challenge (FTC), FIRST Robotics Competition (FRC) - National 4-H Partner” (Robotics, 2018).

4-H offers two events for robotics including the Kentucky 4-H Robotics Competition and the Kentucky 4-H Robotics Competition at the Kentucky State Fair.

The Global Positioning System Program helps youth develop skills in “reading and developing maps, using a map and compass for orienteering,
collecting and applying data, and learning how technology is used to find locations and coordinates” (Geospatial, 2018). Youth members also learn how to use the Global Positioning System. Geographic Information System (GIS) “is any system capable of capturing, storing, analyzing, and displaying geographically referenced information; that is, data identified by location” (GIS in KY, 2018). GIS is so important, there is a GIS Day dedicated to helping people learn about geography (GIS day, 2018). 4-H participates in this event and it is celebrated worldwide.

4-H Camps

Beyond programs, events, and competitions, there are also 4-H camps that youth members can attend. The Kentucky camps include Feltner 4-H Camp (London, KY), Lake Cumberland 4-H Camp (Nancy, KY), North Central 4-H Camp (Carlisle, KY), and West Kentucky 4-H camp (Dawson Springs, KY). Each of these camps include a pool, rock wall, archery, trails, lake, cabins, dining hall, and a meeting space. Some camps offer a campfire area, horse stalls, an amphitheater, and even a wedding space (Camp, 2018). Camps offer a variety of classes and activities for the campers.

“Camp-led Class Options Include:

- Geo-Caching
- Hiking
● Bird Adaptations

● Kentucky Mammals

● Furs & Tracks

● Night Hikes (Owl Calls, Star Gazing, Triboluminescence, Rods vs Cones, & More!)

● New Classes added every year, contact camp for details!

Evening Activities Available:

● Field Games

● Sally Down The Alley

● S'mores

● Night Hikes

● Versus Challenge

● Gold Rush

● Scavenger Hunts

● Campfire

Additional Classes/Class Spaces Available:

● Fishing

● Team Building/Low Ropes*

● Archery*
- Zipline/High Ropes*
- Pond Study
- Outdoor Cooking
- Healthy Living” (Environmental Education, 2018).

Kentucky’s 4-H Camp mission is, “is to improve people through intentional life skill development” (Camp, 2018). During an interview with a local 4-H agent, Mrs. Paris said, “We offer a variety of camps, retreats and conferences in the summer: Cloverbud Camp, Horse Camp, Summer Camp, Teen Retreat, Teen Conference, Middle School Summit, Stuck in the Middle (a middle school retreat), and Aerospace Camp. We also have a program called the Teen Leadership Academy where four middle school students from different counties meet one day a month to learn about government, industry, medical, tourism, etc and visit lots of places. They also complete civic engagement projects. They have a graduation ceremony at the end of the month where they have to give presentations in groups—helping them learn teamwork. Those who stay involved can earn state awards beginning in 6th grade and scholarships as Seniors. The older ones can run for state officer, area office, or state teen council delegate. There are also several leadership boards (Performing Arts Troupe, Shooting Sports Ambassador, Healthy Living Board, Fashion Design Leadership Board, SET Board) that offer teens state leadership positions” (Paris Interview, 2018).
In a study from six regional Virginia 4-H educational centers, the state 4-H office evaluated 4-H camping outcomes. This study was conducted by Barry A. Garst, a extension specialist in 4-H staff development, and F. A. Bruce, a camping and extension specialist in program evaluation. The study found that “camp is more than a location or a program; it includes what happens to youth during and after the camping experience. Camp participation has been found to affect youth in multiple ways, enhancing many forms of growth, including:

- Affective (self-esteem and self-concept),
- Cognitive (knowledge, skills, abilities, and attitudes),
- Behavioral (self-reported behaviors and behavioral intentions),
- Physical,
- Social, and

**Conclusion**

In an interview with Wanda Paris, a local 4-H agent, she outlined the opportunities members have to participate in clubs and camps. Mrs. Paris said “We have in the classroom clubs for 4th & 5th grades once a month for 1 hour each class. In middle and high schools, our clubs meet on club day and the students
can choose whether they want to join. We have a Teen Leadership Council that meets at my office at 7:00 a.m. monthly for high school teens looking for extra leadership opportunities. We have a Cloverbud Club for 3rd graders that meets after school. Also meeting right after school: Craft Club, Photography Club, Lego Club, Outdoors Club, Culinary Arts. Meetings in the evening we have: Engineering Club, Horse Club, Livestock Club, Shooting Sports Club. We have a lot of special interest groups that meet throughout the year for short term project: Vet Science, Sewing, Country Ham, etc. This week we have had 2 specialty day camps: Middle School trip to Mantle and High School Day Camp on the American Revolution” (Paris Interview, 2018).

In conclusion, 4-H helps “kids build life skills by leading hands-on projects in areas like science, health, agriculture and, citizenship – helping them to grow confidence, independence, resilience, and compassion. Adult mentors provide a positive environment where they learn by doing. This 4-H experience is delivered by a community of more than 100 public universities across the nation” (Benefits, 2018). Youth members who participate in 4-H are two times more likely to participate in STEM activities, two times more likely to make healthier choices, and four times more likely to give back to their communities. 4-H STEM (Science, Technology, Engineering, and Math) programs result in committed youth to have fun, hands-on activities that inspire them about careers in science (Benefits,
There is a program for everyone and each member can be as involved as he or she wants to. Members can choose to only participate in only afterschool activities or participate in all activities on and off of school grounds. 4-H gives youth members a variety of programs to participate in and many different areas. The main programs are: Agriculture, Family and Consumer Science, Health, Communication, Leadership, Natural Resources, and Science, Engineering and Technology. Within these programs, there is a great deal of opportunity, events, and workshops youth members can participate in to learn. With 4-H implemented around the world and reaching “7 million young people in more than 50 countries” (Global, 2018), 4-H can impact every child from Kindergarten to high school. After high school, youth members can volunteer and still learn a lot while impacting their community and young 4-H members.
References


4-H and Youth Entomology. (n.d.). Retrieved March 27, 2018, from https://entomology.ca.uky.edu/4HEnt


4-H Bee Ambassador Program. (n.d.). Retrieved February 26, 2018, from https://entomology.ca.uky.edu/content/4-h-bee-ambassador-program

4-H Camp. (n.d.). Retrieved March 31, 2018, from https://4-h.ca.uky.edu/camp

mpower-young-people/article_5778a6ce-0bac-11e8-bc59-476f4dd816c5.html

4-H Demonstrations [PDF]. (n.d.). University of Kentucky.

4-H Food Smart Families | 4-H Healthy Living. (n.d.). Retrieved April 01, 2018, from https://4-h.org/get-involved/partners/foodsmartfamilies/


4-H Grow True Leaders Campaign - Every Child can be a True Leader. (n.d.). Retrieved April 02, 2018, from https://4-h.org/get-involved/grow-true-leaders/

4-H MEMBER KNOWLEDGE AND PERCEPTION OF AGRICULTURE, 36(3)


4-H Motto, Creed and Pledge. (n.d.). Retrieved March 26, 2018, from http://4-hhistorypreservation.com/History/M-C-P/


4-H Speeches [PDF]. (n.d.). University of Kentucky.


Aerospace. (n.d.). Retrieved March 31, 2018, from

Agriculture. (n.d.). Retrieved March 03, 2018, from https://4-h.ca.uky.edu/ag

Biotechnology. (n.d.). Retrieved March 31, 2018, from https://4-h.ca.uky.edu/content/biotechnology


Bullying. (n.d.). Retrieved March 13, 2018, from https://4-h.ca.uky.edu/content/bullying

Celebrating 100 years of Kentucky 4-H History. (n.d.). Retrieved February 13, 2018, from https://4-h.ca.uky.edu/history

Celebrating KY 4-H History in 1909-1919. (n.d.). Retrieved February 6, 2018, from https://4-h.ca.uky.edu/history/1909-1919

Celebrating KY 4-H History in the 1920s. (n.d.). Retrieved February 13, 2018, from https://4-h.ca.uky.edu/history/1920s

Celebrating KY 4-H History in the 1930s. (n.d.). Retrieved February 13, 2018, from https://4-h.ca.uky.edu/history/1930s

Celebrating KY 4-H History in the 1940s. (n.d.). Retrieved February 20, 2018,
from https://4-h.ca.uky.edu/history/1940s

Celebrating KY 4-H History in the 1950s. (n.d.). Retrieved February 20, 2018, from https://4-h.ca.uky.edu/history/1950s

Celebrating KY 4-H History in the 1960s. (n.d.). Retrieved February 20, 2018, from https://4-h.ca.uky.edu/history/1960s

Celebrating KY 4-H History in the 1970s. (n.d.). Retrieved February 24, 2018, from https://4-h.ca.uky.edu/history/1970s

Celebrating KY 4-H History in the 1980s. (n.d.). Retrieved February 24, 2018, from https://4-h.ca.uky.edu/history/1980s

Celebrating KY 4-H History in the 1990s. (n.d.). Retrieved February 24, 2018, from https://4-h.ca.uky.edu/history/1990s

Celebrating KY 4-H History in the 2000s. (n.d.). Retrieved February 26, 2018, from https://4-h.ca.uky.edu/history/2000s

Clothing & Textiles. (n.d.). Retrieved March 01, 2018, from https://4-h.ca.uky.edu/content/clothing-textiles

CODE NAME HOME ALONE[PDF]. (n.d.). University of Kentucky.


Educational Resources Resources for Teachers and Youth Group Leaders. (n.d.)

Energy/Electricity. (n.d.). Retrieved March 31, 2018, from

Entrepreneurship. (n.d.). Retrieved March 6, 2018, from

https://4-h.ca.uky.edu/content/entrepreneurship

Environmental Education Camps. (n.d.). Retrieved March 31, 2018, from

https://4-h.ca.uky.edu/content/environmental-education-camps

Equine Undergraduate Opportunities. (n.d.). Retrieved February 26, 2018, from

https://afs.ca.uky.edu/equine/equine-undergraduate-opportunities

Family & Consumer Sciences Day at the Kentucky State Fair. (n.d.). Retrieved March 13, 2018, from

https://4-h.ca.uky.edu/content/family-consumer-sciences-day-kentucky-state-fair

Family Life. (n.d.). Retrieved March 01, 2018, from

https://4-h.ca.uky.edu/content/child-care

Figure 2f from: Irimia R, Gottschling M (2016) Taxonomic revision of Rochefortia Sw. (Ehretiaceae, Boraginales). Biodiversity Data Journal 4: E7720.

https://doi.org/10.3897/BDJ.4.e7720. (n.d.).

doi:10.3897/bdj.4.e7720.figure2f


Geospatial. (n.d.). Retrieved March 31, 2018, from https://4-h.ca.uky.edu/content/geospatial

GIS in Kentucky [PDF]. (n.d.). KGS.

Global Education. (n.d.). Retrieved March 27, 2018, from https://4-h.ca.uky.edu/content/global-education


History of 4-H Youth Development Organization. (n.d.). Retrieved February 6, 2018, from https://4-h.org/about/history/

Home Environment. (n.d.). Retrieved March 06, 2018, from https://4-h.ca.uky.edu/content/home-environment


Kentucky 4-H Project Fact Sheet. 4-H Communication Project [PDF]. (n.d.)

Kentucky 4-H Project Fact Sheet. 4-H Dog Program [PDF]. (n.d.)
Kentucky 4-H Project Fact Sheet. Home Environment [PDF]. (n.d.).


Kentucky 4-H Project Overview. 4-H Photography Project [PDF]. (n.d.).

Kentucky 4-H Project Overview. 4-H Visual Arts Project [PDF]. (n.d.).

Kentucky 4-H Project Overview. 4-H Leadership [PDF]. (n.d.).

Kentucky 4-H Project Overview. 4-H Music Project [PDF]. (n.d.).

Kentucky 4-H Project Overview. 4-H Drama Project [PDF]. (n.d.).

Kentucky 4-H Project Overview. 4-H Natural Resources [PDF]. (n.d.).

Kentucky 4-H Youth Development Initiatives. (n.d.). Retrieved March 29, 2018, from

https://4-h.ca.uky.edu/content/kentucky-4-h-youth-development-initiatives

Kentucky Bugs: Care and Feeding. (n.d.). Retrieved March 27, 2018, from

https://entomology.ca.uky.edu/content/kentucky-bugs-care-and-feeding


K-State Research and Extension. (n.d.). Retrieved March 27, 2018, from

http://www.kansas4-h.org/projects/science-engineering-and-technology/g

Leadership. (n.d.). Retrieved March 26, 2018, from

https://4-h.ca.uky.edu/leadership
Manners for the Real World. (n.d.). Retrieved March 6, 2018, from https://4-h.ca.uky.edu/content/manners-real-world

Natural Resources. (n.d.). Retrieved March 27, 2018, from https://4-h.ca.uky.edu/natural-resources

Needlework. (n.d.). Retrieved March 01, 2018, from https://4-h.ca.uky.edu/content/needlework


Performing Arts Leadership Board. (n.d.). Retrieved March 26, 2018, from https://4-h.ca.uky.edu/content/performing-arts-leadership-board

Performing Arts. (n.d.). Retrieved March 26, 2018, from https://4-h.ca.uky.edu/content/performing-arts

Physical Fitness. (n.d.). Retrieved March 13, 2018, from https://4-h.ca.uky.edu/content/physical-fitness

Plant and Soil Science. (n.d.). Retrieved February 26, 2018, from https://4-h.ca.uky.edu/content/plant-science

Plate It Up. (n.d.). Retrieved March 26, 2018, from https://kenton.ca.uky.edu/content/plate-it

Program Areas. (n.d.). Retrieved March 31, 2018, from https://4-h.ca.uky.edu/programareas

Public Speaking. (n.d.). Retrieved March 26, 2018, from
https://4-h.ca.uky.edu/content/public-speaking

Rabbit. (n.d.). Retrieved February 26, 2018, from https://4-h.ca.uky.edu/rabbit

Robotics. (n.d.). Retrieved March 31, 2018, from

https://4-h.ca.uky.edu/content/robotics

Science, Engineering & Technology. (n.d.). Retrieved March 29, 2018, from

https://4-h.ca.uky.edu/set

Sewing. (n.d.). Retrieved March 01, 2018, from

https://4-h.ca.uky.edu/content/sewing


https://4-h.ca.uky.edu/content/shooting-sports-camp


https://4-h.ca.uky.edu/content/shooting-sports

Soil Science Program. (n.d.). Retrieved March 27, 2018, from

https://4-h.ca.uky.edu/content/soil-science

Southern Region Teen Leadership Conference (SRTLC). (n.d.). Retrieved March 27, 2018, from https://4-h.ca.uky.edu/SRTLC

State 4-H Communication Day. (n.d.). Retrieved March 26, 2018, from

https://4-h.ca.uky.edu/content/state-4-h-communications-day

Steps to a Healthy Teen Program Plan[PDF]. (n.d.)

Substance Abuse. (n.d.). Retrieved March 26, 2018, from
https://4-h.ca.uky.edu/content/substance-abuse


Teen Conference. (n.d.). Retrieved March 26, 2018, from

http://4-h.ca.uky.edu/teenconference


Visual Arts. (n.d.). Retrieved March 26, 2018, from

https://4-h.ca.uky.edu/content/visual-arts


What is 4-H? (n.d.). Retrieved February 6, 2018, from

https://4-h.org/about/what-is-4-h/


https://4-h.ca.uky.edu/content/wildlife

Workforce Preparation. (n.d.). Retrieved March 06, 2018, from

https://4-h.ca.uky.edu/content/workforce-preparation