

# California 4-H Projects

“Learn by doing” in an atmosphere where learning is fun is a basic philosophy of 4-H. The project is where learn-by-doing takes place. Within the project, members find things to learn, to do, to make, and to explore.

## A 4-H project is:

- Planned work in an area of interest to the 4-H member.
- Guided by a 4-H adult volunteer who is the project leader.
- Aimed at planned objectives that can be attained and measured.
- Summarized by some form of record keeping.
- A minimum of six hours of project instruction.

## Positive Youth Development

4-H is designed to support the positive and successful development of all youth. 4-H volunteer leaders are essential partners in creating a positive environment by focusing on the strengths of youth and providing positive ways for youth to meet their basic needs. <http://ucanr.org/sites/UC4-H/About/Mission/PYD/>

Each year, a 4-H member enrolls in at least one project. Members enrolling for the first time should be encouraged to take on only one project. As members gain experience, the size of the project may be increased or additional projects may be selected. Some project groups meet once a week. Others meet once or twice a month. The purpose of these meetings is to guide the members in gaining knowledge, attitudes, skills, and habits needed to complete their work successfully. Check with your county office to see which projects are currently being offered in your county. The availability of a project depends upon whether an adult volunteer is available to lead it.

**Note:** Many of these project names act as umbrellas for specific topics. For example a 4-H Club may offer an "Arts and Crafts" project that focuses on glass etching, porcelain dolls, or another topic. Please check with your Community 4-H Club Leader for a specific list of projects your 4-H Club offers.

## 4-H Record Book

Most projects encourage 4-H members to record their learning experiences with the Annual Project Report. <http://ucanr.org/sites/UC4-H/Resources/Members/RecordBook/>

## Youth-Adult Partnerships

Youth-adult partnerships are shown to be one of the most effective ways to engage both youth and adults in meaningful activities which contribute to positive youth development. <http://ucanr.org/sites/UC4-H/About/Mission/YAP/>

## For Adult 4-H Volunteer Leaders

Project Leaders Digest  
<http://ucanr.org/sites/UC4-H/Resources/Volunteers/ProjectLeaders/>

## Safety

Safety is an important consideration in all 4-H projects. Please review the Clover Safety Fact Sheets. <http://safety.ucanr.org/4h/>

## 4-H Curriculum

Curriculum is available at: ANR Publications (<http://anrcatalog.ucdavis.edu/4HYouthDevelopment/>) and National 4-H Mall (<http://www.4-hmall.org/Curriculum.aspx>).

## Citizenship

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Civic Engagement	<b>Citizenship</b>	Learn about your rights and responsibilities, the common core values of the American democratic system, and how you can be a leader and make a difference in your community. Focus on personal development, history and culture, government studies, and current issues. More information on California 4-H citizenship projects is available at <a href="http://ca4h.org/Projects/Citizenship/">http://ca4h.org/Projects/Citizenship/</a> .	
	<b>Domestic Exchanges</b>	4-H members and volunteer leaders establish a two-way exchange with 4-Hers from another state or another county within California. The groups take turns hosting one another on consecutive summers.	
	<b>Economics &amp; Marketing</b>	An advanced study in any project field. A special study (including tours) of different types of businesses, a roadside stands, or the commodity marketing program.	
	<b>Global Education</b>	Foster cross-cultural awareness, cooperation and understanding about other countries. Learn to live and work effectively in a global society.	
	<b>International Exchanges</b>	Expand your cross-cultural skills. Host students, travel to live with host families and learn about different countries! The California 4-H International Exchange provides opportunities to Australia, Costa Rica, Finland, and Japan. More information about California 4-H arranged International Exchanges is available at <a href="http://ca4h.org/Citizenship/International/">http://ca4h.org/Citizenship/International/</a> .	
	<b>Service Learning</b>	Learn how to step-up a community service project to a service-learning project and make a greater impact on your community while learning new skills. <a href="http://ca4h.org/Projects/Citizenship/ServiceLearning/">http://ca4h.org/Projects/Citizenship/ServiceLearning/</a> .	
Communications and Expressive Arts	<b>Arts &amp; Crafts</b>	Learn to make creative items or projects. This includes but is not limited to, any of the following: knitting, crocheting, cake decorating, jewelry making, fly tying, macrame, decoupage, stained-glass, making, pottery, ceramics, flower arranging, and hobbies such as coin or stamp collecting.	
	<b>Calligraphy</b>	Learn about the history and art of calligraphy. Project may include pen or quill use.	
	<b>Ceramics &amp; Clay Arts</b>	Learn how to make items or projects out of clay.	
	<b>Communications</b>	Develop oral and written communication skills. Learn about various methods used to communicate including speech and writing. Project may elect to focus on various historical or modern technologies used for communication. <a href="http://ca4h.org/Projects/Leadership/PublicSpeaking/">http://ca4h.org/Projects/Leadership/PublicSpeaking/</a>	
	<b>Cultural Arts</b>	Learn about and/or participate in leisure-time activities that enhance the quality of life. These activities include, but are not limited to: dance, drama, music, art, and museum work.	
	<b>Dance</b>	Learn the history and various styles of dance. Leader may wish to specify type of dance that will be taught in the project.	
	<b>Drama &amp; Theater Arts</b>	Learn about everything involved with theatre! Members work together to develop a performance including music, dance, acting, stage creation, and scripts.	
	<b>Graphic Arts</b>	Members will learn the art of printmaking and drawing, using either historical or modern techniques.	
	<b>Hobbies</b>	Hobbies are practiced for interest and enjoyment. Various 4-H hobby projects may focus on collecting, art, making, or tinkering.	
	<b>Leathercraft</b>	Learn to design, make, and decorate leather furnishings and wardrobe items.	
	<b>Music &amp; Instruments</b>	Learn to play various instruments. May include information on writing and reading music.	
<b>Photography</b>	Learn to use photographic equipment and take and/or develop photographs.		

## Citizenship Continued

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Communications and Expressive Arts Continued	<b>Public Speaking</b>	Members will learn how to properly prepare and give a demonstration or talk. This may include any number of props education in areas such as posters and PowerPoint. May include members participating in events such as Presentation Day. <a href="http://ca4h.org/Projects/Leadership/PublicSpeaking/">http://ca4h.org/Projects/Leadership/PublicSpeaking/</a>	
	<b>Scrapbooking</b>	Learn how to make a scrapbook to commemorate events or people using photos, mementos, and basic scrapbooking tools.	
	<b>Sign Language</b>	Learn about the deaf community and their way of life. Members will also learn basic to advanced sign language.	
	<b>Community Pride &amp; Community Service</b>	Includes projects such as Community Service, Community Pride, and Heritage and Culture. Generally focus' on assisting a member of the club's community with tasks or financial problems. Many projects may be designed using all or part of the Community Action Process as a guideline.	
Community / Volunteer Service	<b>All Star Leadership</b>	A project in which a member is either already an All-Star or wishes to become an All-Star. Learn how an All-Star assists their county and members. Learn more at <a href="http://ca4h.org/Projects/Leadership/AllStar/">http://ca4h.org/Projects/Leadership/AllStar/</a> .	Prohibited from enrolling.
Leadership and Personal Development	<b>Beginning 4-H</b>	A project for new 4-H members which provides the opportunity to "sample" different projects.	
	<b>Career Exploration</b>	Learn about career opportunities through individual or group study under the direction of a leader.	
	<b>Group-Determined</b>	Any project which a group has determined it wishes to do.	
	<b>Hi 4-H</b>	A Citizenship and Community Pride project for high school 4-H members.	Prohibited from enrolling.
	<b>Leadership Development</b>	Learn about leadership for an individual, group and organization. Build your own leadership skills through public speaking, project management, communication, organization, and negotiation.	
	<b>Primary Members (Cloverbud)</b>	For members under the age of nine to participate in; may include basic sampling of other projects.	
	<b>Record Keeping</b>	Learn about records management and the practice of identifying, classifying, archiving, preserving, and destroying records. Many projects may focus on 4-H record books. <a href="http://ca4h.org/Resources/Members/RecordBook/">http://ca4h.org/Resources/Members/RecordBook/</a>	
	<b>Self-Determined</b>	Any project which a member wishes to engage in for which there is not already a project category.	

## Healthy Lifestyles

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Health	<b>Baking and Bread Making</b>	Learn the many methods and history of bread making. May include traditional practices or machine practices. May include commercial introduction.	
	<b>Cake Decorating</b>	Members learn how to decorate a cake according to their tastes. Cakes may vary from advanced to very basic.	
	<b>Foods</b>	Learn how to shop for, prepare, and serve nutritious food safely, and how to maintain good health through a good diet. Food may be whatever the leader selects, with subcategories including but not limited to: Beginning, Dairy, International, Nutritional, and Preservation.	
	<b>Foods - Beginning</b>	Foods project focused on easy and beginning activities.	
	<b>Foods - Dairy</b>	Foods project focused on dairy products.	
	<b>Foods - International</b>	Foods project focused on international foods.	
	<b>Foods - Nutrition</b>	Foods project focused on nutrition.	
	<b>Foods - Preservation</b>	Foods project focused on preservation of foods.	
	<b>Health and Physical Fitness</b>	This project concentrates on personal health and well-being. Learn how to stay healthy by understanding basic health concepts. Participate in community health education and learn about different health services and related public misconceptions.	
<b>Sports</b>	Participate in and/or referee any group or individual sport including but not limited to: volleyball, softball, soccer, basketball, football, skiing, sailing, roller-skating, and relays. Participate in boosting public awareness. Subcategories may include: Bowling, Football, Gold, Soccer, and Volleyball.		
Personal Safety	<b>CPR &amp; First Aid</b>	Learn about life-saving methods such as CPR and first-aid. May include certification.	
	<b>Emergency Preparation &amp; Management</b>	Learn about emergency preparation for individuals, families and communities. Projects may make evacuation maps, emergency kits, and certify youth in the Community Emergency Response Team (CERT) process.	
	<b>Safety</b>	Learn to understand and practice the general concepts of personal safety, environmental safety, and public safety. May include self-defense as well as first-aid training.	

## Science, Engineering & Technology

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Ag in the Classroom	<b>Ag in the Classroom</b>	Learn about both commercial and non-commercial agricultural practices in a classroom environment. More information about California Ag in the Classroom is available at <a href="http://www.cfaitc.org/">http://www.cfaitc.org/</a>	
Animals	<b>Alpacas</b>	Learn about Alpacas, their care and management. May also include information on their use as a wool or pack animal.	Prohibited from enrolling.
	<b>Animal Husbandry</b>	Learn about the historical and current agricultural practice of breeding and raising livestock.	
	<b>Bees</b>	Learn about bees and their care and required equipment. Member may manage one or more hives while learning about the handling and sale of honey and the bee industry.	
	<b>Birds</b>	Learn about birds and their care and management as a part of Avian Science. Birds may be raised for pets, show, breeding, meat, eggs, or sale. Project may include information about commercial practices in birds. Subcategories include Emu and Ostrich, Exotic, Poultry, and Turkey.	
	<b>Birds - Emu &amp; Ostrich</b>	Avian Science project focused on Emus and Ostriches.	Prohibited from enrolling.
	<b>Birds - Exotic</b>	Avian Science project focused on Exotic Birds including canaries, finches, budgies, cockatiels, lovebirds, African grays, amazons, macaws, and cockatoos.	
	<b>Birds - Poultry</b>	Avian Science project focused on poultry.	
	<b>Birds - Turkey</b>	Avian Science project focused on turkeys.	
	<b>Cats</b>	Learn about the care and feeding of household cats. May include management and grooming. Cats may be raised for pets, shows, or breeding.	
	<b>Cattle</b>	Learn about the raising, care, and management of cattle. Animals may be raised for meat, show, sale, or breeding. Subcategories include Calf Processing, Replacement Heifer, and Veal Calf.	Prohibited from enrolling.
	<b>Cattle - Beef</b>	Learn about beef cattle and their care and management. Members may raise animals for meat or for breeding. Ownership is preferred. Opportunities are available for non-owners.	Prohibited from enrolling.
	<b>Cattle - Dairy</b>	Learn about dairy cattle, their care and management. Members may raise animals for milk, breeding, or sale as bred heifers. Ownership is preferred. Opportunities are available for non-owners.	Prohibited from enrolling.
	<b>Cavies</b>	Learn the care, feeding, and management of cavies. Members may raise animals for pets, market, showing, or breeding.	
	<b>Dog</b>	Learn about dogs, their care, and their feeding. May include obedience training of animal. Subcategories include Agility, Care and Training, and Stock.	
	<b>Goats</b>	Learn about goats and their general care, management, and various uses. Members may raise animals for pets, breeding, sale, or show. Subcategories include Pygmy, Pack, and Nigerian.	Prohibited from enrolling.
	<b>Goats Angora</b>	Learn about angora goats and their care and management. Members may use animals for marketing, breeding, or for angora wool.	Prohibited from enrolling.
	<b>Goats Dairy</b>	Learn about dairy goats, their care and management. Members may raise animals for market, milk, or breeding. Opportunities are available for non-owners and owners alike.	Prohibited from enrolling.
	<b>Goats Meat</b>	Learn about meat goats and their care and management. Animals may be raised for meat, show, sale, or breeding.	Prohibited from enrolling.
<b>Goats Nigerian</b>	Goat project focused on Nigerian dwarf goats.		
<b>Goats Pack</b>	Goat project focused on pack goats.	Prohibited from enrolling.	

## Science, Engineering & Technology Continued

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Animals Continued	<b>Goats Pygmy</b>	Goat project focused on pygmy goats.	
	<b>Guide Dogs and Service Animals</b>	Raise a puppy for Guide Dogs for the Blind, Inc, or a similar association. Applications are required and may be obtained through the 4-H office. <a href="http://www.ca4h.org/Projects/SET/Animal/GuideDogs">http://www.ca4h.org/Projects/SET/Animal/GuideDogs</a>	
	<b>Equine - Horse &amp; Ponies</b>	Learn how to care for, feed, and ride a horse or pony. The animal may be either owned or leased. Handicapped riding and the "horseless project" (learning about equines without access to one) are offered in some counties. Subcategories of this project include Breeding, Draft, Drill, Judging, Driving, English, Gymkhana & Dressage, Miniature, Trail Riding, and Western. More information on California 4-H Horse projects is available at <a href="http://www.ca4h.org/Projects/SET/Animal/EquineEducation">http://www.ca4h.org/Projects/SET/Animal/EquineEducation</a> .	Prohibited from enrolling.
	<b>Livestock Judging</b>	Learn how to judge various species of livestock according to breed or market specifications. May include, but are not limited to, species such as Cow, Horse, Sheep, Goat, Swine, Turkey, Chicken, Rabbit, Cavies, and Dogs. May include instruction in carcass and egg judging. <a href="http://www.ca4h.org/Programs/Events/SLJC/">http://www.ca4h.org/Programs/Events/SLJC/</a>	Prohibited from enrolling.
	<b>Llamas</b>	Learn about llamas and their care and management. May include information on their use as pack or wool animals.	Prohibited from enrolling.
	<b>Pets and Small Animals</b>	Learn about, care for, and train pets and small animals such as cats, hamsters, birds, and rats. May include breeding and sale.	
	<b>Rabbits</b>	Learn the care, feeding, and management of rabbits. Members may raise animals for pets, fur, show, or breeding.	
	<b>Reptiles</b>	Learn about the care, feeding, and management of various species of reptiles. These species may include Snakes, Turtles and Tortoises, and Lizards.	
	<b>Sheep</b>	Learn about the care and management of sheep. Members may raise animals for pets, show, wool, breeding, or sale. Ownership is preferred.	Prohibited from enrolling.
	<b>Sheep Breeding</b>	Learn about the care and management of breeding sheep. Members may learn, but are not limited to, the genetics involved in breeding, the care and management of in-lamb ewes and ewes after lambing, and AI practices.	Prohibited from enrolling.
	<b>Sheep Market</b>	Learn about the care and management of market sheep. Members may raise animals for market or show.	Prohibited from enrolling.
	<b>Swine</b>	Learn about the care and management of swine. Members may raise animals for pets, show, sale, or breeding. Ownership is preferred.	Prohibited from enrolling.
	<b>Swine Breeding</b>	Learn about the care and management of breeding swine. Members may learn, but are not limited to, the genetics involved in breeding swine, the care and management of farrowing sows and boars, and AI practices.	Prohibited from enrolling.
	<b>Swine Market</b>	Learn about the care and management of market swine. Members may raise animals for market or show.	Prohibited from enrolling.
<b>Therapeutic Animals</b>	Learn about the care and training of therapeutic animals. Members may be training or assisting with a therapeutic animal during the animal's working hours.	Prohibited from enrolling if using large animals.	

## Science, Engineering & Technology Continued

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Biological Sciences	<b>Embryology</b>	Learn about the stages in the development of an egg embryo. Members may hatch eggs and study the development at regular intervals, preserve embryos and make reports.	
	<b>Entomology</b>	Learn to collect, identify, and possibly mount insects. Learn about insect's individual traits and habitats, and their relationship with humans in their uses and control.	
	<b>Marine Biology</b>	Learn about marine biology including plant and animal life in the ocean. Marine science focuses on biological aspects of the ocean while oceanography focuses on the geological and meteorology aspects.	
	<b>Veterinary Science</b>	Learn about the range of behavior and characteristics of a normal animal. Learn about diseases, their causes and prevention, and precautions to control those diseases that affect humans.	
	<b>Zoology</b>	Learn about animals, their classification and physical traits. May include learning about habitats and animal interactions with humans.	
Consumer and Family Sciences	<b>Child Development and Care</b>	Learn how children grow and respond, and how to care for children and build relationships with small children. Appropriate activities for 10- and 11-year old boys and girls are included as well as activities for the early and mid teens.	
	<b>Clothing &amp; Textiles</b>	Members will not only learn the basics of clothing and other project construction, but also explore purchasing, selection, appearance, and care of clothing and textile.	
	<b>Consumer Education</b>	For the member who is interested in wise purchasing for themselves and others. Members will learn to balance needs, wants, and resources by setting priorities and weighing alternative.	
	<b>Fashion Revue</b>	Introduces members to the idea and basics of modeling a piece of clothing or accessory in front on an audience. Items need not be made by member in some cases. May include the attendance of a Fashion Revue. <a href="http://www.ca4h.org/Programs/Events/SFR/">http://www.ca4h.org/Programs/Events/SFR/</a>	
	<b>Fiber Arts</b>	May include any craft which uses fiber as it's main point. May include project such as felting or weaving.	
	<b>Flower Arranging</b>	Learn how to tastefully arrange flowers and other objects for use as decoration.	
	<b>Home &amp; Personal Management</b>	Home management utilizes the same principles that are applied in business or to our personal life. All of us make decisions, establish priorities, set goals, and chart progress with records. Members will learn how to make effective use of limited resources to reach goals.	
	<b>Home Arts &amp; Furnishings</b>	Learn to embrace home arts, home furnishings, and refinishing furniture. Members may also learn how to best incorporate color, light, design, space, and texture in a living space to optimize comfort and appearance.	
	<b>Quilting</b>	Members learn how to design and assemble a quilt using machine or hand methods. May include guidance in selecting fabrics and patterns.	
	<b>Table Setting</b>	Members learn how to properly set and display a table for both formal and non-formal situations. May include a section on proper etiquette	

## Science, Engineering & Technology Continued

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Environmental Education and Earth Sciences	<b>4-H Camping (Overnight)</b>	Members learn how to safely camp overnight in varying terrains. May include an overnight trip. More information on California 4-H camps is available at <a href="http://ca4h.org/Programs/Camps/">http://ca4h.org/Programs/Camps/</a>	
	<b>Astronomy</b>	Learn about celestial bodies and migrations. Members will discover constellations and seasonal changes. May include a short course on telescopes.	
	<b>Climatology</b>	Study the climate and other atmospheric sciences in a 4-H climatology project.	
	<b>Environmental Stewardship</b>	Stewardship is an ethic that embodies cooperative planning and management of environmental resources with organizations, communities and others to actively engage in the prevention of loss of habitat and facilitate its recovery in the interest of long-term sustainability. <a href="http://ca4h.org/Projects/SET/EE/">http://ca4h.org/Projects/SET/EE/</a>	
	<b>Fishing and Fly Tying</b>	Members learn the delicate art of tying flies for fishing. Fishing methods taught may vary from fly fishing to deep sea fishing to lake fishing.	
	<b>Forestry</b>	Forestry is the science of managing forests. Learn about planting and growing trees, the use of timber, wildlife habitat, recreation, landscapes, watershed management, erosion control and many other forest ecosystems concepts.	
	<b>Oceanography</b>	Learn about ocean currents, waves, plate tectonics and geology of the sea floor. Marine science focuses on biological aspects of the ocean while oceanography focuses on the geological and meteorology aspects.	
	<b>Outdoor Adventure</b>	Includes, but is not limited to any of the following; camping, rock climbing, canoeing, mountaineering, first aid, outdoor cookery, topographic map reading, and outdoor survival.	
	<b>Science Literacy</b>	A project aimed to teach scientific concepts to youth and increase their scientific literacy. <a href="http://ca4h.org/Projects/SET/Initiative/">http://ca4h.org/Projects/SET/Initiative/</a>	
	<b>Soil &amp; Water Conservation</b>	Learn to understand the importance of soil and water conservation in everyday living. Included will be a study of our renewable and non-renewable resources and how they affect our quality of life.	
	<b>Wildlife</b>	Learn about local and exotic wildlife, their habitat, and value to ecosystem and economics. Includes information on the conservation of wildlife. May include work with a relocation/rehabilitation program.	
Physical Sciences	<b>Energy Managment</b>	Learn about limited and renewable sources of energy. Learn uses, impacts, costs, and management of both traditional and alternative energy forms.	
	<b>Geology</b>	Learn about the study of solid and liquid matter constituting the Earth. May include learning about minerals, jewelry, and field trips to geologic formations.	
Plant Science	<b>Field Crops and Managment</b>	Learn to grow and market any commercial type of field or row crop. May include some information on commercial methods and environmental issues.	
	<b>Fruits, Nuts and Berries</b>	Learn to grow and market any fruit crop. May include information on commercial methods and environmental issues.	
	<b>Indoor and Mini Gardens</b>	Learn to grow indoor plants and terrariums as well as patio plants and pot gardening of flowering or fruit-bearing plants.	
	<b>Junior Master Gardener</b>	Junior Master Gardener program cultivates leadership and volunteerism by utilizing fun, hands-on horticultural projects. <a href="http://ca4h.org/Projects/SET/EE/JuniorMasterGardener/">http://ca4h.org/Projects/SET/EE/JuniorMasterGardener/</a>	
	<b>Ornamental Horticulture</b>	Learn flower growing, home landscaping, and growing and caring for lawns, ground covers, shrubs and trees. This projects includes all ornamental plants grown outdoors.	
	<b>Sugar beets</b>	Learn to grow and harvest plots of beets to test agricultural practices or for use as a commercial crop or in show,	
	<b>Vege Gardens and Crops</b>	Learn to grow vegetables and/or market crops. This includes organic gardening.	



## Science, Engineering & Technology Continued

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
	<b>Aerospace &amp; Rocketry</b>	Learn about one of more of the categories. May include designing, building, or demonstrating flying or non-flying gliders, airplanes, or rockets.	
Technology and Engineering	<b>ATV &amp; Dirt Biking</b>	Learn the care and maintenance of ATV's and dirt bikes, as well as safety practices. May include the planning and implementation of an excursion. Information on California ATV age and safety laws may be found at <a href="http://groups.ucanr.org/ehs/files/34244.pdf">http://groups.ucanr.org/ehs/files/34244.pdf</a> The National 4-H ATV Safety Curriculum is available at <a href="http://www.atv-youth.org/">http://www.atv-youth.org/</a>	Prohibited from enrolling.
	<b>Automotive</b>	Learn safety in the care and use of the automobile. May include maintenance and repairs, cost and responsibilities of car ownership, and driving skills.	
	<b>Bicycles</b>	Learn the care and maintenance of bicycles, as well as safety practices. May include the planning and implementation of a bicycle excursion.	
	<b>Website Design</b>	Members learn how to design a website using either code or a specific program. May include a short section on graphic design and website management.	
	<b>Computers &amp; Internet</b>	Learn about computer hardware and software. Projects may focus on specific software packages, general computer maintenance, or computer hardware identification and upgrading.	
	<b>Construction &amp; Building</b>	Learn about general construction and engineering principles. Projects may focus on small or large construction activities and members will learn about how to design and build.	
	<b>Electricity &amp; Electronics</b>	Learn the fundamental of electricity and its application as a source of energy and power. Learn to build and maintain electronics of varying complexity.	
	<b>Farm Machinery</b>	Learn to maintain and safely operate tractors and farm machinery or equipment.	Prohibited from enrolling.
	<b>General Engineering</b>	This project may be used as a catchall to include such things as drafting, home repairs, concrete work, general engineering, mechanical drawing and other industrial education, and mechanical science activities.	
	<b>GIS/GPS</b>	GPS is a navigational system that can accurately locate your position. GIS is a computer program for storing, retrieving, analyzing and displaying spatial data. Projects may focus on one or both or introduce members to geo-caching.	
	<b>Metal Working</b>	Learn to safely operate a gas or electric welder over the course of several projects.	
	<b>Robotics</b>	Learn about the science and technology of robots and their design, manufacture and application.	
	<b>Shooting Sports - Archery</b>	Members will learn how to safely operate and maintain archery equipment, as well as learn how to shoot. This project may include bow-hunting or target practice, and often includes competitions. 4-H Archery projects may only be led by a 4-H-certified adult 4-H volunteer or staff. For more information please visit <a href="http://www.ca4h.org/Projects/SET/ShootingSports">http://www.ca4h.org/Projects/SET/ShootingSports</a>	Prohibited from enrolling.
	<b>Shooting Sports - Hunting</b>	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. Subcategories include Hunting, Muzzle Loading, Pistol, Rifle, and Shotgun. 4-H Shooting Sports projects may only be led by a 4-H-certified adult 4-H volunteer or staff. For more information please visit <a href="http://www.ca4h.org/Projects/SET/ShootingSports">http://www.ca4h.org/Projects/SET/ShootingSports</a>	Prohibited from enrolling.

## Science, Engineering & Technology Continued

Nat'l 4-H Category	Project Name	Description	Primary (age 5-8)
Technology and Engineering Continued	<b>Shooting Sports - Muzzle Loading</b>	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. Subcategories include Hunting, Muzzle Loading, Pistol, Rifle, and Shotgun. 4-H Shooting Sports projects may only be led by a 4-H-certified adult 4-H volunteer or staff. For more information please visit <a href="http://www.ca4h.org/Projects/SET/ShootingSports">http://www.ca4h.org/Projects/SET/ShootingSports</a>	Prohibited from enrolling.
	<b>Shooting Sports - Pistol</b>	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. Subcategories include Hunting, Muzzle Loading, Pistol, Rifle, and Shotgun. 4-H Shooting Sports projects may only be led by a 4-H-certified adult 4-H volunteer or staff. For more information please visit <a href="http://www.ca4h.org/Projects/SET/ShootingSports">http://www.ca4h.org/Projects/SET/ShootingSports</a>	Prohibited from enrolling.
	<b>Shooting Sports - Rifle</b>	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. Subcategories include Hunting, Muzzle Loading, Pistol, Rifle, and Shotgun. 4-H Shooting Sports projects may only be led by a 4-H-certified adult 4-H volunteer or staff. For more information please visit <a href="http://www.ca4h.org/Projects/SET/ShootingSports">http://www.ca4h.org/Projects/SET/ShootingSports</a>	Prohibited from enrolling.
	<b>Shooting Sports - Shotgun</b>	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. Subcategories include Hunting, Muzzle Loading, Pistol, Rifle, and Shotgun. 4-H Shooting Sports projects may only be led by a 4-H-certified adult 4-H volunteer or staff. For more information please visit <a href="http://www.ca4h.org/Projects/SET/ShootingSports">http://www.ca4h.org/Projects/SET/ShootingSports</a>	Prohibited from enrolling.
	<b>Small Engines</b>	Learn about the care and use of a 2-cycle and 4-cycle gasoline and diesel engines in all home, farm, or recreational situations - from lawn and garden equipment, to boats and motorcycles.	
	<b>Video Production</b>	Learn about the science of videotaping, editing and distributing a finished product.	
	<b>Woodworking</b>	Learn to design, build and finish a wooden item. Learn the safe use and care of woodworking tools and equipment.	