

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.

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.

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://4h.ucanr.edu/About/Mission/>

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://4h.ucanr.edu/About/Framework/YAP/>

4-H Record Book

Most projects encourage 4-H members to record their learning experiences with the Annual Project Report. <http://ucanr.edu/sites/uc4-h/resources/members/recordbook/>

For Adult 4-H Volunteer Leaders

Project Leaders Digest <http://ucanr.edu/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.edu/4-H_Resources/

4-H Curriculum

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

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 4-H Club Leader for a specific list of projects your 4-H Club offers.

Revised August 6, 2021

Civic Engagement

National 4-H Category	Project Name	Description	Primary (age 5-8 years old)
Civic Engagement	Civic Engagement	Learn to make a positive difference in one's community and developing the combination of knowledge, skills, values and motivation. Youth will learn to engage within communities on many scales--from local to global--making contributions that reinforce their sense of purpose and strengthening their sense of belonging with peers and community adults. More information on California 4-H civic engagement projects is available at http://4h.ucanr.edu/Projects/CivicEngagement/	
	Civic Engagement: Economics & Business	This project helps prepare youth to be successful as they enter into the market and learn basic economic principles of a free market system, investigate the stock, bond, fund, cash, and futures markets, and explore U.S. industries and their impacts on the American economy.	
	Domestic Exchanges	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.	
	Economics & Marketing	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.	
	Global Education	Foster cross-cultural awareness, cooperation and understanding about other countries. Learn to live and work effectively in a global society.	
	International Exchanges	Expand your cross-cultural skills. 4-H members may participate in exchanges with Canada and U.S. territories and through organized programs led by a state 4-H Youth Development Program. More information about International Exchanges is available at http://4h.ucanr.edu/Resources/Policies/Chapter7/ .	
	Service Learning	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. http://4h.ucanr.edu/Projects/CivicEngagement/service_learning/ .	
	Service Learning: Community Service	In this project youth learn the value of helping others, develop leadership, communication, organizational skills and a sense of empowerment, and build self-esteem from the positive results of their service.	
Communications and Expressive Arts	Arts & Crafts	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.	
	Arts & Crafts: Beading	In this project, youth learn about beading and bead making design and handicraft. The 4-H beading project may include history of bead making, the use of beads historically and in present day, design, tool exploration and more.	
	Arts & Crafts: Fine Arts	In this project, youth learn about fine arts through exploration and creation. The fine arts project may include the creation of creative art that is appreciated for its imaginative, aesthetic and intellectual in content.	

Arts & Crafts: Jewelry Making	In this project, youth learn about jewelry making through decorative design and handicraft. The 4-H jewelry making project may include beading, jewelry making, history of design, tool exploration and more.	
Arts & Crafts: Painting	In this project, youth learn about painting through exploration and creation. The painting project may include the study and use of many different styles, techniques, mediums and more.	
Calligraphy	Learn about the history and art of calligraphy. Project may include pen or quill use.	
Ceramics & Clay Arts	Learn how to make items or projects out of clay.	
Communications	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. http://4h.ucanr.edu/Projects/Project_Sheets/	
Cultural Arts	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.	
Cultural Arts: Music Project	In this project youth may listen to and appreciate many styles and genres of music, perform music by voice or using one or more instruments, read and compose music, and make an instrument.	
Dance	Learn the history and various styles of dance. Leader may wish to specify type of dance that will be taught in the project.	
Drama & Theater Arts	Learn about everything involved with theatre! Members work together to develop a performance including music, dance, acting, stage creation, and scripts.	
Graphic Arts	Members will learn the art of printmaking and drawing, using either historical or modern techniques.	
Hobbies	Hobbies are practiced for interest and enjoyment. Various 4-H hobby projects may focus on collecting, art, making, or tinkering.	
Hobbies: Tabletop Gaming	This project introduces youth to the fundamentals of game theory and game mechanics through experiential playing and reflection on games.	
Leathercraft	Learn to design, make, and decorate leather furnishings and wardrobe items.	
Music & Instruments	Learn to play various instruments. May include information on writing and reading music.	
Photography	Learn to use photographic equipment and take and/or develop photographs.	
Public Speaking	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. http://4h.ucanr.edu/Projects/Project_Sheets/	
Public Speaking: Presentations	The 4-H Public Speaking project focuses on supporting youth in developing and strengthening their abilities and confidence to speak in front of people. Giving presentations helps develop many life skills including the ability to speak in front of groups; organize ideas; and create and use graphics to support the spoken work. While there are many opportunities for youth to present in 4-H, this project focuses on practicing and providing feedback.	
Scrapbooking	Learn how to make a scrapbook to commemorate events or people using photos,	

		mementos, and basic scrapbooking tools.	
	Sign Language	Learn about the deaf community and their way of life. Members will also learn basic to advanced sign language.	
Community / Volunteer Service	Community Pride & Community Service	Includes projects such as Community Service, Community Pride, and Heritage and Culture. Generally focuses 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.	
Leadership and Personal Development	Ambassador Leadership	A project in which a member is selected as an Ambassador. Learn how an Ambassador assists their county and members. Learn more at http://4h.ucanr.edu/Projects/Leadership/County_Ambassadors/	Prohibited from enrolling.
	Beginning 4-H	A project for new 4-H members which provides the opportunity to "sample" different projects.	
	Career Exploration	Learn about career opportunities through individual or group study under the direction of a leader.	
	Group-Determined	Any project which a group has determined it wishes to do.	
	Hi 4-H	A Civic Engagement and Community Pride project for high school 4-H members.	Prohibited from enrolling.
	Leadership Development	Learn about leadership for an individual, group and organization. Build your own leadership skills through public speaking, project management, communication, organization, and negotiation.	
	Primary Members (iSprout, Mini Member & Cloverbud)	For members under the age of nine to participate in; may include basic sampling of other projects.	
	Record Keeping	Learn about records management and the practice of identifying, classifying, archiving, preserving, and destroying records. Many projects may focus on 4-H record books. http://4h.ucanr.edu/Resources/Member_Resources/RecordBook/	
	Record Keeping: Record Books	In this project, youth learn about record keeping. The focus reflects the importance of this life skill on their daily lives. This project will focus on the 4-H record book process where you record project and club work using a standard format that provides incentive for participation, learning and achievement. This project will allow youth to practice records management; reflect on yearly work; measure annual achievements and growth throughout your 4-H experience; set goals, pursue strategies to meet those goals, and record how you may have shifted gears in the face of challenges and obstacles.	
	Self-Determined	Any project which a member wishes to engage in for which there is not already a project category.	

Healthy Lifestyles			
National 4-H Category	Project Name	Description	Primary (age 5-8 years old)
Health	Baking and Breadmaking	Learn the many methods and history of bread making. May include traditional practices or machine practices. May include commercial introduction.	
	Cake Decorating	Members learn how to decorate a cake according to their tastes. Cakes may vary from advanced to very basic.	
	Foods	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.	
	Foods: Advanced Cooking	In this project, youth learn about foods by partnering with adults in the kitchen to plan and cook food, explore the science, nutrition, and history of cooking while promoting healthy eating and resource management. This is advanced cooking program moves beyond exploration to encompass advanced skill building practices.	
	Foods: Baking	In this project, youth learn about foods by partnering in the kitchen to plan and create baked goods. They explore the science, nutrition and history of baking while promoting healthy eating and resource management.	
	Foods: Beginning	Foods project focused on easy and beginning activities.	
	Foods: Candy Making	In this project, youth learn about food art and desserts by partnering in the kitchen to plan and create candies. They explore the science, nutrition and history of candy making.	
	Foods: Cooking	In this project, youth learn about foods by partnering with adults in the kitchen to plan and cook food, explore the science, nutrition, and history of cooking while promoting healthy eating and resource management.	
	Foods: Dairy	Foods project focused on dairy products.	
	Foods: International	Foods project focused on international foods.	
	Foods: Nutrition	Foods project focused on nutrition.	
	Foods: Outdoor Cooking	In this project, youth learn about foods by partnering with adults to plan and cook outdoors. Explore the science of outdoor cooking, through diverse cooking strategies and heating sources while promoting healthy eating and resource management.	
	Foods: Preservation	Foods project focused on preservation of foods. For more information: http://4h.ucanr.edu/Projects/HealthyLiving/Jr_Master_Food_Preserver_4-H_Project/	
	Foods: Beginning Foods Preservation	In this project youth will learn a variety of food preservation methods while making delicious foods, explore fun facts about nutrition, produce, and history of food preservation and engage in real life applications of science and mathematics such as heat transfer, chemistry, and measuring.	
	Foods: Junior Master Food Preserver	Requires County Director and Advisor approval with participation of a Certified Master Food Preserver. Youth must have completed the Beginning Food Preservation Project. Youth will extend their knowledge of the science and art of safe home food preservation and to extend this knowledge with others in their communities.	
Health and Physical Fitness	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.	
	Health and Physical Fitness: Healthy Living Advocacy	This project requires that youth have a foundational understanding of basic nutrition and physical activity. In conjunction with UCCE health and nutrition programs, this project encourages youth to build on their knowledge to become teachers, public speakers and advocates for healthy living in their communities.	
	Health and Physical Fitness: Mindfulness	Mindfulness is the practice of paying attention in the present moment and accepting it without judgement. Being mindful is to experience moments with openness and to be aware of the present.	
	Health and Physical Fitness: School Wellness	Youth partner with adult leaders to promote health and wellness on their school campus.	
	Health and Physical Fitness: Stress Management	In this project, youth partner with caring adults to explore ways they can reduce and manage their stress.	
	Health and Physical Fitness: Yoga	Yoga is a type of physical activity that combines physical movement with breathing and focused concentration. Youth in the 4-H Yoga project learn breathing exercises, physical postures, and mindful practices that help strengthen the mind and body.	
	Sports	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, Golf, Soccer, and Volleyball.	
	Sports: Bowling	A sports and athletics project can provide youth with the opportunity to build athletic skills and group communication. This project will focus on the fundamentals, skill building, history and equipment used to bowl. The goal of this project should be to encourage positive and fun experience with physical activity.	
	Sports: Golf	A sports and athletics project can provide youth with the opportunity to build athletic skills and group communication. This project will focus on the fundamentals, skill building, rules and history of the game and equipment used to golf. The goal of this project should be to encourage positive and fun experience with physical activity.	
Personal Safety	CPR & First Aid	Learn about life-saving methods such as CPR and first-aid. May include certification.	
	Emergency Preparation & Management	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.	
	Safety	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 and Technology

National 4-H Category	Project Name	Description	Primary (age 5-8 years old)
Ag in the Classroom	Ag in the Classroom	Learn about both commercial and non-commercial agricultural practices in a classroom environment. More information about California Ag in the Classroom is available at https://learnaboutag.org	
Animals	Alpacas	Learn about Alpacas, their care and management. May also include information on their use as a wool or pack animal.	Prohibited from enrolling.
	Animal Husbandry	Learn about the historical and current agricultural practice of breeding and raising livestock.	
	Bees	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.	
	Birds	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.	
	Birds: Emu & Ostrich	Avian Science project focused on Emus and Ostriches.	Prohibited from enrolling.
	Birds: Exotic	Avian Science project focused on Exotic Birds including canaries, finches, budgies, cockatiels, lovebirds, African grays, amazons, macaws, and cockatoos.	
	Birds: Poultry	Avian Science project focused on poultry.	
	Birds: Turkey	Avian Science project focused on turkeys.	
	Cats	Learn about the care and feeding of household cats. May include management and grooming. Cats may be raised for pets, shows, or breeding.	
	Cattle	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.
	Cattle: Beef	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.
	Cattle: Dairy	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.
	Cavies	Learn the care, feeding, and management of cavies. Members may raise animals for pets, market, showing, or breeding.	
	Dog	Learn about dogs, their care, and their feeding. May include obedience training of animal. Subcategories include Agility, Care and Training, and Stock.	
	Goats	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.
	Goats: Angora	Learn about angora goats and their care and management. Members may use animals for marketing, breeding, or for angora wool.	Prohibited from enrolling.
Goats: Breeding	In the goat breeding project members will learn about the basic principles of animal husbandry by owning, caring for and keeping records on their goat(s). They will demonstrate knowledge of animal health and biosecurity.	Prohibited from enrolling.	
Goats: Dairy	Learn about dairy goats, their care and management. Members may raise animals for market,	Prohibited	

	milk, or breeding. Opportunities are available for non-owners and owners alike.	from enrolling.
Goats: Meat	Learn about meat goats and their care and management. Animals may be raised for meat, show, sale, or breeding.	Prohibited from enrolling.
Goats: Nigerian	Goat project focused on Nigerian dwarf goats.	
Goats: Pack	Goat project focused on pack goats.	Prohibited from enrolling.
Goats: Pygmy	Goat project focused on pygmy goats.	
Guide Dogs and Service Animals	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. http://4h.ucanr.edu/Projects/Project_Sheets/	
Equine: Horse & Ponies	Learn how to care for, feed, and ride a horse of 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 http://4h.ucanr.edu/Projects/STEM/SET_Projects/EquineEducation/ .	Prohibited from enrolling.
Livestock Judging	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. http://4h.ucanr.edu/Projects/STEM/SET_Projects/Animal/SLJC/	Prohibited from enrolling.
Llamas	Learn about llamas and their care and management. May include information on their use as pack or wool animals.	Prohibited from enrolling.
Pets and Small Animals	Learn about, care for, and train pets and small animals such as cats, hamsters, birds, and rats. May include breeding and sale.	
Rabbits	Learn the care, feeding, and management of rabbits. Members may raise animals for pets, fur, show, or breeding.	
Reptiles	Learn about the care, feeding, and management of various species of reptiles. These species may include Snakes, Turtles and Tortoises, and Lizards.	
Sheep	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.
Sheep: Breeding	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.
Sheep: Market	Learn about the care and management of market sheep. Members may raise animals for market or show.	Prohibited from enrolling.
Swine	Learn about the care and management of swine. Members may raise animals for pets, show, sale, or breeding. Ownership is preferred.	Prohibited from enrolling.
Swine: Breeding	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.
Swine: Market	Learn about the care and management of market swine. Members may raise animals for market or show.	Prohibited from enrolling.
Therapeutic Animals	Learn about the care and training of therapeutic animals. Members may be training or assisting	Prohibited

		with a therapeutic animal during the animal's working hours.	from enrolling if using large animals.
Biological Sciences	Embryology	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.	
	Entomology	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.	
	Marine Biology	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.	
	Veterinary Science	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.	
	Veterinary Science: Biosecurity	The goal of this project is to teach participants how to keep themselves and their animals safe in a variety of situations.	
	Zoology	Learn about animals, their classification and physical traits. May include learning about habitats and animal interactions with humans.	
Consumer and Family Sciences	Child Development and Care	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.	
	Clothing & Textiles	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.	
	Clothing & Textiles: Beginning Sewing	In this project, youth learn about textiles, fashion and personal style and partner with adults to design and create sewn clothing and accessories. The 4-H sewing project may include sewing, design, clothing repair and more. This project is geared to youth just beginning to explore sewing projects.	
	Clothing & Textiles: Sewing	In this project, youth learn about textiles, fashion and personal style. They partner with adults to design and create sewn clothing and accessories. The 4-H sewing project may include sewing, design, clothing repair and more.	
	Clothing & Textiles: Quilting	In this project, youth learn about quilting. They partner with adults to design and create quilted items. The 4-H quilting project may include quilt design, learning about quilting patterns, piecing, quilting, hand quilting, machine quilting, color coordination and much more.	
	Consumer Education	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.	
	Fashion Revue	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. https://ucanr.edu/sites/sfd/Competitions/State_Fashion_Revue/	
	Fiber Arts	May include any craft which uses fiber as its main point. May include project such as felting or weaving.	
	Fiber Arts: Crochet	In this project, youth learn about crocheting through the exploration of fiber arts, fashion and personal style. They partner with adults to design and create crocheted creations. The 4-H crochet project may include design, crocheting, application of new techniques and more.	
	Fiber Arts: Knitting	In this project, youth learn about knitting through the exploration of fiber arts, fashion and	

		personal style. They partner with adults to design and create knitted creations. The 4-H knitting project may include design, knitting, application of new techniques and more.	
	Flower Arranging	Learn how to tastefully arrange flowers and other objects for use as decoration.	
	Home & Personal Management	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.	
	Home Arts & Furnishings	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.	
	Quilting	Members learn how to design and assemble a quilt using machine or hand methods. May include guidance in selecting fabrics and patterns.	
	Table Setting	Members learn how to properly set and display a table for both formal and non-formal situations. May include a section on proper etiquette.	
Environmental Education and Earth Sciences	4-H Camping (Overnight)	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 http://4h.ucanr.edu/Programs/Camps/	
	Astronomy	Learn about celestial bodies and migrations. Members will discover constellations and seasonal changes. May include a short course on telescopes.	
	Climatology	Study the climate and other atmospheric sciences in a 4-H climatology project.	
	Climatology: Climate Science	In this project youth will study climatology and how prevailing weather conditions in specific geographic regions change over years, decades, centuries, and eras, affecting the plants, animals, and other life in the region.	
	Environmental Stewardship	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. http://4h.ucanr.edu/Projects/STEM/SET_Projects/EE/	
	Fishing and Fly Tying	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.	
	Forestry	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.	
	Oceanography	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.	
	Outdoor Adventure	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.	
	Outdoor Adventure: Camping	Camping provides opportunities to be get out and enjoy the outdoors while spending time in interesting, inspiring, and/or beautiful landscapes. Youth partner with adult leaders to explore natural landscapes, human impacts on the environment, outdoor safety, setting up camp spaces and eating healthy in the outdoors.	
Outdoor Adventure: Hiking	Hiking provides opportunities to be active while spending time in interesting, inspiring, and/or beautiful landscapes. Youth partner with adult leaders to explore natural landscapes, human impacts on the environment, outdoor safety, and eating healthy in the outdoors.		

	Science Literacy	A project aimed to teach scientific concepts to youth and increase their scientific literacy. http://4h.ucanr.edu/Projects/Project_Sheets/	
	Science Literacy: Citizen Science	Citizen science is public participation in scientific research in collaboration with scientists in community-driven research or global investigations and includes asking questions, formulating a hypothesis, collecting and reporting data, interpreting the results and asking more questions, and reporting the results to the community.	
	Science Literacy: Making & Tinkering	Youth will plan, design, and make technology-based projects, emphasizing playful tinkering, problem solving, and engineering design.	
	Science Literacy: Social Science	Social sciences are the studies of society and humans, with fields in anthropology, communication, education, history, geography, linguistics, political science, psychology, health, and sociology. Youth will raise questions, gather, analyze, discuss, display, and communicate data.	
	Science Literacy: STEM	This project introduces youth to important concepts through engaging in reasoning skills to help improve attitudes for interest in STEM.	
	Soil & Water Conservation	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.	
	Wildlife	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	Energy Management	Learn about limited and renewable sources of energy. Learn uses, impacts, costs, and management of both traditional and alternative energy forms.	
	Geology	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	Field Crops and Management	Learn to grow and market any commercial type of field or row crop. May include some information on commercial methods and environmental issues.	
	Field Crops and Management: Sustainable Agriculture	In this project youth may explore different perspectives in sustainable agriculture, discover major challenges in the future of agriculture, form their own opinions of agricultural methods, and learn how their decisions can affect the future of agriculture.	
	Fruits, Nuts and Berries	Learn to grow and market any fruit crop. May include information on commercial methods and environmental issues.	
	Indoor and Mini Gardens	Learn to grow indoor plants and terrariums as well as patio plants and pot gardening of flowering or fruit-bearing plants.	
	Junior Master Gardener	Junior Master Gardener program cultivates leadership and volunteerism by utilizing fun, hands-on horticultural projects. http://4h.ucanr.edu/Projects/STEM/SET_Projects/Gardening/	
	Ornamental Horticulture	Learn flower growing, home landscaping, and growing and caring for lawns, ground covers, shrubs and trees. This projects includes all ornamental plants grown outdoors.	
	Sugarbeets	Learn to grow and harvest plots of beets to test agricultural practices or for use as a commercial crop or in show.	
	Vegetable Gardens and Crops	Learn to grow vegetables and/or market crops. This includes organic gardening.	
	Vegetable Gardens and Crops: Gardening	In this project, youth will learn how to plan, plant, maintain and cultivate their own plant life for beauty, health and cuisine. This project will give youth an opportunity to learn that plants play a	

		vital role for animals and humans.	
Technology and Engineering	Aerospace & Rocketry	Learn about one of more of the categories. May include designing, building, or demonstrating flying or non-flying gliders, airplanes, or rockets.	
	ATV & Dirt Biking	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. 4-H Clover Safe Note on All Terrain Vehicle Safety and California ATV age and safety laws may be found at: https://ucanr.edu/sites/safety/files/1567.pdf	Prohibited from enrolling.
	Automotive	Learn safety in the care and use of the automobile. May include maintenance and repairs, cost and responsibilities of car ownership, and driving skills.	
	Bicycles	Learn the care and maintenance of bicycles, as well as safety practices. May include the planning and implementation of a bicycle excursion.	
	Website Design	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.	
	Computers & Internet	Learn about computer hardware and software. Projects may focus on specific software packages, general computer maintenance, or computer hardware identification and upgrading.	
	Construction & Building	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.	
	Electricity & Electronics	Learn the fundamental of electricity and its application as a source of energy and power. Learn to build and maintain electronics of varying complexity.	
	Farm Machinery	Learn to maintain and safely operate tractors and farm machinery or equipment.	Prohibited from enrolling.
	General Engineering	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.	
	GIS/GPS	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.	
	GIS/GPS: Geocaching	Geospacial refers to the position of things on the earth's surface. Youth will learn about the adventure and skill of Geocaching as a real world, outdoor treasure hunting experience using GPS-enabled devices to navigate to a specific set of GPS coordinates to find the cache. The 4-H geocaching project may include leaning to navigate with GPS coordinates; field trips to cache sites; learning to make your own cache and more.	
	GIS/GPS: Geospacial	Geospacial refers to the position of things on the earth's surface. Youth will learn about the history of cartography, use a GPS system to record and find geospacial coordinates, learn about multiple GPS systems including latitude and longitude, UTM, or UPS, and learn to read, understand, and design maps on both paper and using GIS software.	
	Metal Working	Learn to safely operate a gas or electric welder over the course of several projects.	
	Metal Working: Welding	Welding's usefulness can be applied to many areas of life through learning how to safely use tools to weld and complete metal working projects. The welding project teaches the full scope of welding practices and safety to design and create metal work projects.	
Robotics	Learn about the science and technology of robots and their design, manufacture and application.		
Shooting Sports: Archery	Members will learn how to safely operate and maintain archery equipment, as well as learn how	Prohibited	

	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 http://4h.ucanr.edu/Projects/STEM/SET_Projects/ShootingSports/	from enrolling.
Shooting Sports: Hunting	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. Participants may engage in multiple disciplines while learning about hunting, including Archery, 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: http://4h.ucanr.edu/Projects/STEM/SET_Projects/ShootingSports/	Prohibited from enrolling.
Shooting Sports: Muzzle Loading	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. 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 http://4h.ucanr.edu/Projects/STEM/SET_Projects/ShootingSports/	Prohibited from enrolling.
Shooting Sports: Pistol	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. 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: http://4h.ucanr.edu/Projects/STEM/SET_Projects/ShootingSports/	Prohibited from enrolling.
Shooting Sports: Rifle	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: http://4h.ucanr.edu/Projects/STEM/SET_Projects/ShootingSports/	Prohibited from enrolling.
Shooting Sports: Shotgun	Learn to safely operate and maintain guns and equipment. This project may include target practice, hunting, or competitions. 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: http://4h.ucanr.edu/Projects/STEM/SET_Projects/ShootingSports/	Prohibited from enrolling.
Shooting Sports: Western Heritage	Learn to safely operate and maintain replica firearms and archery equipment of the frontier period (1860-1900), while expanding knowledge of U.S. history. This project may include target practice, hunting skills, competitive events or living history. 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 http://4h.ucanr.edu/Projects/STEM/SET_Projects/ShootingSports/	Prohibited from enrolling.
Small Engines	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.	
Video Production	Learn about the science of videotaping, editing and distributing a finished product.	
Woodworking	Learn to design, build and finish a wooden item. Learn the safe use and care of woodworking tools and equipment.	