

4-H Project Selection Guide

Citizenship and Civic Education

Citizenship (Local, State, National)

Public Adventures

- Youth will discover public issues are important to them and others, gain new skills to make things happen, and put their learning into action.

“... And My World ...”

- Youth will develop a cross-cultural understanding and international interdependence in our ever developing and changing world.

Exploring Citizenship

- Youth will learn to relate all of their 4-H projects and other experiences to the world around them.
- They will learn to “care” and “share” with others through the skills and talents they’ve developed.
- They will learn that each person, neighborhood and community has individual needs.

Community Pride

- Youth will learn basic skills and attitudes necessary to group action in our society.
- They will develop a sense of cooperative responsibility throughout communities by demonstrating an example of specific community improvement.

Community Exploration

- Youth will learn the real function of community systems, come to understand how people in societies govern themselves.
- They will learn the rights and duties of citizens in a democratic society.
- They will gain experience in finding facts, organizing ideas, and reporting, as well as to plan and conduct interviews.

- They will gain information about possible ways to become active participants in community affairs.

My Heritage

- Youth will discover some links with the past that will enrich their lives today and motivate them to preserve family treasures and carry on traditions into the future.
- Specifically, this project is designed to help youth: become more familiar with their family history and tradition; learn more about their ancestors and gain a greater appreciation for them; become interested in the history of their own community, county, and state; get involved in the discovery, restoration, and preservation of valuable things from the past; find opportunities to share with others some of their fascinating discoveries; become aware of some of the career opportunities related to history and heritage; see the need for and become involved in improving the quality of life now to pass on to future generations.

Community Services

Cultural Education

Genealogy

Family Folklore

- Youth will do research into and preserve skills of the past and involve older friends and family members as resources in the learning process.
- They will learn traditions shared by people who have a common background or interest, including customs, food traditions, stories, songs, sayings, beliefs, games, art, dance, work-related skills, crafts, celebrations, and folk architecture.

Folkpatterns

- Youth learn more about themselves, their families, and their communities.

- They investigate their folklore, foodways, cultural traditions, and local history.

State Exchange

Global Education

International Exchange

International Programming

Understanding Physical and Mental Limitations

Inter-generational Education

Aging Awareness

- Youth will learn the affects of aging.
- They will learn to communicate with older generations and people with disabilities.
- They will learn to work with senior citizens for meaningful, goal-oriented action.

Creating Youth and Adult Partnerships

- Youth will learn to extend peer groups and encourage productive teamwork between youth and adult participants

Volunteerism

The following projects offer young people an opportunity to develop skills and abilities through the practice of leadership under the guidance of an adult leader, working within the environment or as a club. Each unit may be repeated for more than one year.

- Youth will develop a system that teaches individuals to become volunteer program managers.
- They will learn volunteer system development.
- See also Volunteer Work under Personal Development and Leadership.

Working With Individual Members, Unit 1 (Ages 14 and up)

- Teens will work with one or more younger 4-H members to help them with their 4-H program such as selecting a project,

working through the project, or preparing their demonstration, exhibit, and record.

- They will help with at least one community or county event.

Working With a Group, Unit 2 (Ages 15-16)

- Teens will work with a 4-H club, helping the group with at least six activities such as project work, club meetings, demonstrations, judging, and activities.

Project or Club Teen Leader, Unit 3 (Ages 15-19)

- Teens will recruit members and leaders for your club.
- They will organize it and guide it throughout the year by planning a program, teaching a project, selecting and guiding club activities, etc.
- They will help plan and carry out at least one community or county activity.
- Promote 4-H in the community.

Special Interest Volunteer

- Youth will work with extension educators, other adults, and/or teen volunteers to plan and carry out short-term special interest groups, clinics, or day camps for a minimum contact time of 15 hours.
- They will help plan and carry out at least three community or county 4-H activities not related to this project.

Advanced Leadership (for selected/appointed officers of the Utah 4-H Association)

- Youth will attend and participate in officer meetings and Teen Conference.
- They will assist in the promotion of Teen Conference.
- They will perform duties of your office and preside over or lead an activity at Teen Conference.
- They will help plan and carry out at least one community or county activity.

Service Learning

Communications and Expressive Arts

Communication Arts Speaking/Radio/TV

Public Speaking

- Youth will learn how to ask for things, how to explain things, and how to speak persuasively enough to win the active support of others.
- They will learn to communicate effectively and to become more successful, productive members of society.

Writing/Poetry

Performing Arts

Clowning

- Youth will learn the art of clowning by developing physical performing skills and come in touch with the audience as they wave, perform antics, and visit on a one-to-one basis with young and old alike.
- They will also develop interpersonal communication skills, relationships with others, and self-confidence.

Dance Movement

Drama/Theater

Theatre Arts Adventures

- Youth imagine, refine, and present creative ideas in the areas of acting, mime, movement, puppetry, and technical theater (from makeup to costumes to lighting).

Drama for Youth

- Youth should gain an appreciation for the performing arts, learn what elements make a good production and entertainment, learn to determine good entertainment for their own enjoyment.
- They should have exposure to performances and have at least one formal

performance experience. This could be accomplished through club meeting activities, viewing videos, listening to audio cassettes or CD's, and attending performances.

Share the Fun

- Youth will prepare and present a group performance.
- They will learn to work together for a common goal. They will gain exposure to the creative process through drama, dance, music, literature and visual arts.

Music/Sound

Visual Arts

Arts and Crafts

A Palette of Fun With Arts and Crafts

- Youth will focus on seven art topics: careers in the art world; communicating through images, literature, writing, and speaking; community ties; culture; science; sensing; showcasing; and technology.

Imagineering in Art

- Youth will collect ideas of others, then create or invent their own. They will develop an appreciation of how widely art affects their life.

Beading

Seeds and Beads

- Youth will select and prepare art supplies, select a pattern and bead an article, plan their own design, and give a demonstration on their work.

Beads and Beading

- Youth will prepare their beading case and supplies, learn to thread their beading needle and wax their beading thread, to select a pattern and an article, plan their own design, and give a demonstration of their work.

Ceramics

Porcelain Doll

Flower Arranging

Leather Craft

- Youth will learn leathercraft skills, to appreciate the natural beauty and usefulness of leather, the principles of good design, and to strive for quality in their craftsmanship.

Paper Craft

Fabric Craft

Stenciling

Plastic Canvas

Wood Carving/Engraving

See also wood working under Wood Science/ Industrial under Science and Technology

Drawing, Painting, Sculpture

- A Palette of Fun with Arts and Crafts Grades K-6
- Learn elements and principles of art.
- Learn art through cutting and pasting, painting, sculpting, drawing, printing, etc.

Drawing/Sketching

Painting: Oil, Water, Acrylic Oil Painting

- Youth will develop skills and techniques in oil painting.
- They will learn to choose subject matter.
- They will paint an experimental chart or charts and two paintings each year.

Water Color Painting

Acrylic Painting

Sculpture/Pottery

Graphic Arts, Displays, Exhibits

Photography and Video

Adventures with Your Camera

- Youth will learn the basics of photography and, get to know their camera.
- They will learn about saving and sharing photos, to choose good subjects, and about digital photography, picture composition, and lighting.
- They will also learn about careers in photography.

Exploring Photography

- Youth will learn about different types of film, to take action and still-life pictures, how to control and use light, and special techniques such as filters, panoramas, and silhouettes.

Adventures With Adjustable Cameras

- Youth will learn to use adjustable cameras including how to show different views of the same subject; to take natural-looking pictures in dim light without flash; to control how much of the scene is sharp or blurry in the pictures; to use stop action; and different film speeds.

Optional Focus Areas:

Darkroom Techniques

- Youth will learn how to develop and print black and white film and to make enlargements.

Making Videos and Movies

- Youth will learn to use a video or movie camera and how to use motion and techniques for good motion pictures.

Color Printing Techniques

- Youth will learn to use a color enlarger and process color prints.

Investigating Portraiture

- Youth will learn to take portraits in different lighting conditions with different lenses, backgrounds, and poses.

Experimenting With Your Enlarger

- Youth will use their enlarger to produce “trick” photos.

Making the Most of Photos in Your Future Career

- Youth will see how photography is used in different careers and start a portfolio of their best photos.

Solving the Mystery of Publicity Photos

- Youth will learn how to take publicity photos.

Consumer and Family Sciences

Child Development

Babysitting (Ages 12 and up)

Caring for Children

- Youth will learn to appreciate quality child care, learn necessary child care skills, and prepare for eventual parenthood and responsibility.

Enjoying Small Children

- Youth will gain an understanding of small children and how they grow and develop.
- They will enjoy children as they help take care of them and discover how they learn through play experiences.
- They will learn to make good choices of toys, stories and music for children and prepare simple, attractive and nutritious foods for children.

Developing Whole Kids

- Learn how to help kids handle emergencies, develop home-alone skills, stay healthy, and relate appropriately to others

Kids on the Grow

- Youth will learn about the whole child, their total growth and development. They will learn about themselves, do crafts and

activities, and learn about making their home safe for them and their families.

Clothing and Textiles

Sewing Construction

Clothing

- Youth will learn to appreciate textiles and clothing and skill in working with them. They learn about the importance of clothing, choosing color and design, understanding textiles, sewing and buying clothes, and caring for clothes.

Let's Sew

- Youth will learn the basics of sewing. They will learn about sewing tools and how to use a sewing machine and serger.
- They will learn to select fabrics and patterns.

Exploring Textiles and Sewing

- Youth will learn about the field of sewing and textiles while developing important life skills such as decision-making, following directions, and marketing skills.
- In level 1, youth will learn basic sewing skills and how to construct basic clothing or non-clothing items such as pillows, bags, etc.
- In level 2, youth will learn at least three new sewing skills by constructing simple to intermediate clothing or non-clothing items such as a backpack, a pair of mittens, etc.
- They will learn buying strategies, apparel care, apparel design, recycling, how to start their own business, and about the social influences of clothing.
- In level 3, youth will learn at least four new sewing skills by constructing intermediate to advanced clothing or non-clothing items such as a tied quilt, serged wall hanging, etc.

Wardrobe Management

Clothing Decisions, A Style of Your Own

- Youth will learn decision-making skills through a six-step process based on fun,

hands-on clothing activities you can do alone or with friends.

- They will gain a better understanding themselves, clothing styles, fabric characteristics, wardrobe and money management, and laws related to apparel.
- They will find the style that is best for them in clothing and will learn to look beyond advertising and first impulse and purchase clothing they can afford and feel great wearing.
- They will build self-confidence, learn consumer skills, and become involved in community service.

Modeling

Quilting

Knitting (Phases 1-6)

- Youth will learn about selecting knitting tools and yarns.
- They will learn knitting terms, to follow directions, garment finishing and care of knitted garments.
- They will learn how to knit starting with the garter and stockinette stitches, and continue to more advanced techniques such as knitting with four needles.

Crochet (Phases 1-8)

- Youth will learn about selecting tools, yarn, and thread. They will begin with worsted-weight yarns with size D to J hooks and advance to other types of yarns while working with gauge and design.
- They will learn to crochet starting with single and double crochet and continuing to advanced stitches such as afghan and Tunisian crochet in later phases.

Needlecraft/Knot-Tying

Consumer Education

Teen Scene

Home Environment

Color and Design in Home Living

- Youth will study art principles as they relate to room design, make an evaluation of the room they plan to improve, make a color design plan for the room, decide on a major improvement they will make to the room this year, and make a scale drawing of the floor to show furniture arrangement.

Color. . .Texture. . .Design. . .In Space

- Youth will learn about color, texture, elements of design, space, and further explorations.

Home Environment Series

- Youth will learn about design, to make things for their homes, and to beautify their homes.
- They will learn the elements of design, the color families, and to make something for their room or home.

Parenting & Family Life Education

- Family members will consider their feelings, needs, and wants through individual and group discussions, reflections, and activities.
- Youth will learn new skills while developing an understanding of self and other family members.

Environmental Education & Earth Science

Environmental Stewardship

Cycling Back to Nature

- Youth will learn about taking care of and preserving the environment.
- In Food Production and Pesticides, they will learn about ecosystem basics, living and nonliving things, the basics of agriculture and food production, pesticides and the environment, and world populations and food production.
- In Soils Alive!, youth will examine the concepts and issues related to soils and soil organics. They will learn about soil's living, nonliving, and organic components;

organic residue; and our reliance on soil organics.

Earth, Water and Air

- Youth will learn basics for understanding soil, water and air, life interdependence on these resources and the need for conservation.

Geology and Minerals

Weather and Climate

Soils and Soil Conservation

Water

- Youth will come to understand the environmental and economic issues associated with water conservation and quality.
- They will develop a positive attitude toward our own water use conservation and water quality issues and their affect on the natural environment, which cannot be ignored.

Energy (general, home, farm, transportation)

Forest, Rangeland and Wildlife

Forestry

Range Science

Wildlife and Fisheries

Wildlife (Grades K-5)

- Youth will learn about and be able to name 46 animals found in Utah, including game and non-game animals, fish, birds, reptiles, and endangered species.
- They will learn the purpose of the Utah Fish and Game Department.
- They will make a scrapbook of Utah wildlife photos.

Principles of Wildlife Management (Grades 5-12)

- Youth will learn about wildlife habitat and management.

- They will take a field trip to observe and discuss some aspects of wildlife management.

Sport Fishing

- Youth will learn the basic aspects of sport fishing in the four major focus area of Aquatic Ecology, Angling Skills, Tackle Crafting, and Ethics.

Fishing For Adventure

- Youth will learn about sportfishing, including making their own fishing tackle, learning about aquatic ecology, and the relationship between fish, people and the environment.
- They will learn casting methods, and to choose tackle.

Wildlife Ecology (Grades 6-12)

- Youth will learn about ecosystems, succession, and man's influence on the environment.
- They will study more about wildlife communities and specific animals using the Wildlife subject booklets available.

Wildlife (Grades 7-12)

- Youth may select one or more of the Wildlife subject booklets for further study.

Outdoor Education

Adventure/Challenge

Shooting Sports

Shooting Sports Program

- Youth will learn safe and responsible use of firearms (muzzleloading, pistol, rifle, shotgun) and archery equipment.
- They will learn high standards of sportsmanship, and ethical behavior. They will learn about hunting and wildlife.

Archery

- Youth without much experience will learn some of the basic fundamentals of the sport. It will offer those with some experience some of the finer points on

how to improve target scores, and will enrich their overall enjoyment.

- Youth will learn to select equipment, the rules of safe archery, using their equipment, and about target shooting.

Black Powder

Rifle

Shotgun

Waste Management

- Youth will come to understand the environmental and economic issues associated with waste.

Composting

Recycling Adventures

- Youth will come to understand the environmental and economic issues associated with waste.
- They will learn through a puppet show where the problems and solutions to waste management are viewed through the eyes of a little boy named Billy, a friendly pelican, and a family of recycling-conscious animals.

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Household Hazardous Waste

Healthy Lifestyle Education

Chemical Health

Mental and Emotional Health

Stress

- Youth will become aware of stress in their life and help them increase skills coping with stress.
- They will develop an understanding of stress as a factor influencing the quality of their life, to appreciate their mind and body as parts of a system that work together, develop an awareness of their personal stress symptoms, identify situations that are stress-producing for them, increase their skills in changing stress-producing situations, and learn some techniques for coping with stress.

Foods and Nutrition

4-H Foods (Six Easy Bites)

- Youth will explore the world of foods by making lots of different foods, and doing experiments.
- They will learn about healthy food selection, smart food purchasing, food preparation, food safety, food preservation, and careers in food.

Food and Nutrition

- In phase 1, youth will learn about the science of food, to prepare basic foods, to be a smart shopper, and to prepare an exhibit.
- In phase 4, youth will learn to prepare and serve dinners. They will learn to prepare soups, salads, vegetables, fruits, breads, and desserts. They will learn to manage their time and money in preparing the meal.

Tricks for Treats

- Youth will learn beginning food preparation skills, nutrition, and food safety.

- They will learn about the food-guide pyramid, safe use of kitchen utensils and appliances, the importance of sanitation in kitchen safety, how to read and follow a recipe, how to measure ingredients appropriately, how to identify and use various kitchen utensils, how to use small kitchen appliances such as a blender and a toaster, how to use a microwave oven, how to select and prepare snacks, and how to use correct dining etiquette.

Exploring Our Food Heritage

- Youth will learn about the history of food in the United States, foods native to North America, foods originating on other continents and brought to North America by colonists, and the role of food in holiday celebrations.
- They will learn about staple foods from around the world, contributions to American cuisine from various countries around the world, and food heritage identification.
- They will learn to identify personal food likes, dislikes, and preferences; the role of food in communication; and nutritional aspects of cultural and personal food patterns.

Sports Nutrition

- Youth will come to understand the physical development, structure and functions of the human body.
- They will learn about the principles of nutrition and exercise.
- They will plan a personal physical fitness and health program
- They will demonstrate basic skills and physical fitness necessary to participate in a variety of conditioning exercises.

EFNEP

Foods Safety

Food Science (Ages 9 and up)

- Youth will learn about carbohydrates, protein, fat, and water content in foods.

- They will learn how food microbes, oxidation, and enzymes affect food.
- They will learn the scientific method and how acids and bases are used in food preparation.

Foods Preservation

Foods Preparation

Microwave Connection (Ages 8-9)

- Youth will learn how a microwave cooks food and what utensils can be used in a microwave.
- They will learn to prepare a variety of nutritious foods in the microwave.

Breads

Creative Ideas Using Frozen Dough

- Youth will learn about commercial bread products.
- They will learn how bread products fit in the Food Guide Pyramid.
- They will learn how to prepare frozen bread dough products.

Outdoor Cooking

Charcoal Grilling

- Youth will learn how to safely build and use a charcoal fire for outdoor cooking, about the basic equipment needed for safe cooking over a charcoal fire, and how to safely prepare and serve foods out of doors.

Overnight Camping

- Youth will learn to identify and use community resources, agencies, etc., in selecting campsite locations.
- They will learn to manage and organize group responsibilities for camping trips.
- They will learn to save money by making their own cooking equipment, and using economical foods and supplies.
- They will learn to cook safely over an outdoor fire, to clean up and dispose of leftover food safely, and to plan a balanced menu for a 24-hour period.

Backpacking

- Youth will learn to make and select equipment, plan and prepare food for a backpacking trip.
- They will learn to pack for the trip, and to pack out their garbage.

Cake Decorating

- Youth will learn cake decorating fundamentals: preparing and baking the cake, icing, and decorating.
- They will learn to make stars, flowers, shells, piping, and floral sprays.
- They will learn to keep track of equipment and expenses.
- They will learn about icing consistency, color mixing, and various tips.
- They will learn how to use the flower nail, to make borders, tiered cakes, fondant, advanced flowers, and become a cake decorator teacher.

Physical Health

Fitness and Sports

Growth, Development, and Disease Health, It's Your Choice

- Youth will learn about physical wellness including diet and exercise, avoiding unhealthy habits, and keeping their body parts healthy.
- Youth will learn about social wellness and how they relate with others. They will learn about their relationships with family, friends, and other people.
- They will learn about intellectual wellness, involving learning, decision-making, problem-solving, imagination, and creativity.
- They will learn about emotional wellness including self-esteem, feelings toward others, and changes in their lives.
- They will learn about spiritual wellness including values and the things that bring meaning to their lives.
- They will learn about environmental wellness in the world around them including working in school, in their homes, neighborhoods, and communities.

Home Nursing, First Aid/CPR

Sexual Health

Safety

ATV Safety

Automotive Safety

Bicycle Safety

See also Bicycle under Technology and Engineering, which is under Science and Technology.

Communities for Child Safety

Emergency Preparedness

Tractor and Machine Safety Cert.

See also Engine/Tractor/Field under Technology and Engineering, under Science and Technology.

Personal Development and Leadership

Career Exploration and Employability

Wild Over Work (WOW!) (Grades K-6)

- Youth are introduced to skills and behaviors that they will need in the workforce in the future.
- They will participate in hands-on experimental activities in career exploration and skill development.

Learn to Earn

- Youth will teach youth life skills by participating in a business venture. They will strengthen emotional, mental, and social skills; develop leadership skills, organizational skills, and business-related skills; they will explore a variety of career options.

Critical Thinking Skills

Economics, Business, and Marketing

Hobbies and Collections

See also Clothing and Textiles under Consumer and Family Sciences and Cultural Education under Citizenship and Civic Education.

Knitting

- Youth will learn about selecting knitting tools and yarns.
- They will learn knitting terms, to follow directions, garment finishing and care of knitted garments.
- They will learn how to knit starting with the garter and stockinette stitches, and continue to more advanced techniques such as knitting with four needles.

Crochet

- Youth will learn about selecting tools, yarn, and thread. They will begin with worsted-weight yarns with size D to J hooks and advance to other types of yarns while working with gauge and design.
- They will learn to crochet starting with single and double crochet and continuing to advanced stitches such as afghan and Tunisian crochet in later phases.

Leadership Skills Development

Leadership Skills You Never Outgrew

- Youth will develop leadership skills, become more comfortable with communication and people skills, see young people grow in leadership, develop a competency in leadership subject matter, and aid a club in organization management.

Junior and Teen Leaders

- Junior and teen leaders will develop leadership skills and be active participants along with adults in community affairs.

Leisure Education (general)

Personal Development (general)

Self-Determined Projects

- Youth will learn how to select, set goals for, plan, and evaluate 4-H projects of their own choosing.

Character Counts

- Youth will learn to be people of good character by developing values to distinguish right from wrong and a moral strength to do what is right.
- They will learn about the Six Pillars of Character: trustworthiness, respect, responsibility, fairness, caring, and citizenship.

Reading Literacy

Social Recreation Skills

Values Clarification

Plants and Animals

Ag in the Classroom

Animals

Exploring Farm Animals (Grades K-2)

- Youth learn about farm animals and their needs.
- They will learn about the part animals play in our lives. They play Farm Bingo, Create a Critter, and participate in an animal project.

Aquaculture

Beef

- Youth will learn and apply recommended principles of beef animal science.
- They will gain knowledge of sound breeding, feeding, and management practices.
- They will develop integrity, sportsmanship, decision making capability, and public speaking skills through participation in demonstrations, tours, and/or exhibits.

- They will practice leadership skills and roles, become involved with your community, and be a good citizen.
- They will explore career, job, and productive leisure options.

Birds and Poultry

Egg Production

- Youth will learn about chicken or turkey egg production.
- They will care for a minimum of 25 females for egg production.
- They will keep records for at least 10 months for chickens, or for the maturation period (17 to 30 weeks) plus 4 months for turkeys.

Embryology in the Classroom

- Youth will learn about embryology from incubation to hatching (level 1) and do several experiments that focus on re-enforcing the scientific method (level 2).

Turkeys

- Youth will own, manage, and care for a minimum of 10 day-old turkey poults for 12 weeks (broilers or fryers), or for 28 to 30 weeks (roasters).

Duck and Goose

- Youth will learn the characteristics of different breeds and strains of ducks and geese.
- They will learn about preparing ducks and geese for sale.
- They will care for, manage, and keep records on a flock of domestic ducks or geese for 6 months.

Market Broilers

- Youth will own, care for, and keep records on at least 10 chicks for 8 to 10 weeks or until they are sold as fryers.
- They will learn financial management through raising and selling market broilers.
- They will learn responsibility, time management, and proper care of chickens.

Cats

- Youth will learn to understand and care for their cat.

Dogs

- Youth will learn about different breeds of dogs.
- They will learn responsibilities as a dog owner including selection, care, and feeding of a dog.
- They will understand dog illnesses and their prevention and cure.
- They will learn to groom and train a dog.
- They will care for and train one or more dogs that belong to the member or a family pet.
- They will keep records on cost for care and feeding of the dog.

Raising Guide Dog Puppies

- Youth will care for a Guide Dog Puppy for about 1 year, then return it to Guide Dogs for the Blind, Inc., in Boring, Oregon.
- They will train the puppy in basic obedience and expose the puppy socially to as many situations, sounds, and conditions as possible.

Dairy Cattle

This project can be completed without an animal.

- Youth will learn about feeding, nutrition, and dairy cattle management.
- They will learn the principles in producing quality milk and milking procedures.
- They will develop a record-keeping system for milk production, health, and feed.

Goats (dairy, hair, meat)

Dairy Goat, Units 1-5

- Youth will learn how to select a goat.
- They will learn to feed, house, and take good care of a goat.
- They will learn about breeding goats and caring for the kids.
- They will learn about common goat diseases and treatment.

- They will learn about milk testing, processing, and marketing.

Horse And Pony

- Youth will learn about horses—parts, colors, markings, age determination, and gaits.
- They will learn about the breeds and characteristics of horses and ponies.
- They will learn about the needs of horses, equipment, health and safety, and factors to consider in buying a horse.
- They will learn about riding and good horsemanship.
- They will experience the pride of owning or managing a horse or pony and being responsible for its care.
- They will develop an appreciation of horseback riding as a healthy and wholesome form of recreation.
- They will learn skill in horsemanship and an understanding of the business of breeding, raising, and training horses.
- They will increase their knowledge of safety precautions to prevent injury to yourself, others, and your mount.
- They will gain a greater understanding and appreciation of animals, and a humane attitude toward them.

Livestock Judging

- Youth will learn to select sheep, beef, and swine that are functionally efficient in regard to reproduction, production and carcass traits.
- They will learn about conformation that meets the functional needs of the animal, including the parts and purpose of the animal.
- They will learn how to evaluate the factors in selecting the animal with the most of the best and make a final decision.
- They will give oral reasons as to why they chose the animals they did.

Rabbits/Cavies

- Youth will develop patience, understanding, and feeling for living creatures.

- They will learn responsibility feeding and caring for animals.
- They will learn about animals' behavior and how they live and reproduce.
- They will study animal health and disease control.

Market

- Youth will market the young alive or processed for eating.
- They will own two or more does and the appropriate number of bucks and raise at least two litters per doe during the year.
- They will keep performance production records on all rabbits in the herd.

Breeding

- Youth will own two or more does and raise at least two litters per doe, and keep or market the young.
- They will keep breeding pedigree, performance, and production records on all rabbits in the herd.

Pet and Pet Breeding

- Youth will learn about rabbits and their care, the breeds of rabbits, and how to show a rabbit.
- They will own and care for at least one doe or buck.

Sheep

- Youth will select and raise sheep.
- They will accept responsibility by caring for an animal.
- They will learn how to manage your own business.
- They will keep and use records.
- They will learn how animals live and produce their young.
- They will develop proper feeding, insect and parasite control, and management of sheep.

Market Lamb

- Youth will raise one or more weathers or ewes.
- They will enroll their lambs in the official uniform county feed test.

Breeding

- Youth will own and care for one or more aged ewes, yearling ewes, or ewe lambs for a minimum of 90 days before an exhibit.

Flock

- Youth will manage three or more breeding ewes under farm or range conditions.
- They will keep performance records on lambing, wool production, and total pounds of lamb produced.

Small Lab Animals, Pets**Pets Series**

- Youth will explore different kinds of pets. If they don't already have a pet, some of the activities may help them decide whether they want one.
- They will learn responsibility by caring for your pet's needs. You'll learn how to make a safe environment for your pet, evaluate its diet, and keep it healthy.

Explore the World of Small Animals (K-2)

- Youth will learn about the health, nutrition, and care of small animals and to better appreciate and understand them and their unique needs.

Swine

- Youth will learn to select, feed, care for, and train swine for show.
- They will learn about different breeds of swine, parts of a hog, breeding, and farrowing.
- They will devise a program to maintain animal vigor and health.
- They will keep records on an animal and learn the business of producing and marketing pork.

Market Swine

- Youth will own and care for one or more barrows or gilts.
- They will enter all animals in the county uniform feed test.

Breeding

- Youth will care for and manage one or more breeding gilts, or boars, less than 9 months of age.

Breeding Herd

- Youth will care for and manage two or more bred gilts 9 months or older, one or more sows and litters, or one or more boars 9 months or older.

Plants**Crops/Weeds****Small Grains, Beginner**

- Youth will plant and care for at least one acre of small grain adaptable to the area.

Small Grains, Advanced

- Youth will plant and care for three or more acres of small grain adaptable to the area, or one or more of grain seed for certification.

Field Beans, Beginner

- Youth will plant and care for one-half acre of beans using certified seed.

Field Beans, Advanced

- Youth will plant and care for two acres of beans using certified seeds.

Flower Garden/House**Gardens-Fruit/Vegetable****Vegetable Gardening**

- Youth will learn about garden planning, planting a garden, what is happening while they wait, garden care, harvesting and storage, and careers in gardening.

Ornamental Horticulture

- Youth will enjoy activities in indoor gardening, outdoor gardening, flower arranging, composting, and basic plant science.

Science and Technology

Science/Technology Literacy SERIES (Specific Program)

SPACES (Specific Program)

Biological Sciences

Animal Science

See also specific animals under Plants and Animals.

Biotechnology

- Youth will learn about the emerging field of Biotechnology, including genetics.

Aquatic Science

Entomology and Bees

- Youth use hands-on activities to learn valuable life skills through insects found in the soil, on plants, in homes, on pets, and in other secret places.

Food Science

See also Healthy Lifestyle education under foods and nutrition.

- Youth will learn about carbohydrates, proteins, fats, and water content in foods.
- They will learn how food microbes, oxidation, and enzymes affect food.
- They will learn how acids and bases are used in food preparation.

Marine Science

Meat Science

- Youth will learn about the importance of meat and how meat animal production fits in American agriculture.
- They will learn about how meat is produced and how it reaches the supermarket where we consumers finally purchase it.

Plant Science

See also Plants under Plants and Animals.

Crops/Weeds

Small Grains, Beginner

- Youth will plant and care for at least one acre of small grain adaptable to the area.

Small Grains, Advanced

- Youth will plant and care for three or more acres of small grain adaptable to the area, or one or more of grain seed for certification.

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- Youth will plant and care for one-half acre of beans using certified seed.

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Gardens-Fruit/Vegetable

Vegetable Gardening

- Youth will learn about garden planning, planting a garden, what is happening while they wait, garden care, harvesting and storage, and careers in gardening.

Ornamental Horticulture

- Youth will enjoy activities in indoor gardening, outdoor gardening, flower arranging, composting, and basic plant science.

Poultry Science/Embryology

Chickens in the Classroom

- Youth in the classroom will have hands-on experience with animals.
- They will learn respect for living things through learning about hatching, brooding, and caring for and keeping larger chickens.
- They will develop an awareness of the diversity and importance of animal life.

Embryology

- Youth will learn about embryology from incubation to hatching (level 1) and do several experiments that focus on re-enforcing the scientific method (level 2).

Veterinary Science

- Youth will learn to identify normal movement and behavior in judging an animal's physical condition.
- They will understand elements to maintain animal health and to identify, prevent, and treat disease.
- They will learn the terminology of veterinary science and will gain an appreciation for the importance of good management and sanitation.

Technology and Engineering**Aerospace****Aerospace Workforce Skills for Life**

- Youth will learn about flying, kites, hot air balloons, remote control airplanes, gliders, and space shuttles.

Rockets Away!

- Youth will learn about math, engineering, aerospace and physics through the exploration of rocketry science.

Automotive**Bicycle**

See also Bicycle Safety

Bicycle Adventures

- Youth will learn to purchase and maintain a safe bicycle that fits their size and needs and to describe problems associated with improperly sized bicycles.
- They will learn to purchase and understand the benefits of wearing correctly fitted safety helmets and reflective clothing and to describe risks associated with not wearing a helmet.
- They will learn to understand and demonstrate safe bicycle handling and traffic skills in a variety of environments and conditions.
- They will learn to maintain and fix bicycles themselves.

Computer Technology**Computer Mysteries**

- Youth will learn about how computers work and how to use them for fun things like games, searching the Internet and more serious stuff like homework.

Electricity**Electric Excitement**

- Youth demystify the "magic" of electric circuits, magnetism, motors, and electronics through hands-on, useful, and fun activities.

Electric Energy

- Youth will gain a basic knowledge of electricity.
- They will learn about the relationship between magnetism and the way they work together to provide us many of the conveniences for our modern living.
- They will learn about electrical connections, building basic equipment, home wiring, and maintaining electrical equipment.
- They will learn common uses for electric energy in the home, the proper use of lighting, the operation of electric heating appliances, the function of refrigerators and air conditioners, the general operating scheme of electronic appliances, and about selecting appliances.
- They will learn about how electricity is produced, the generation, transmission, and distribution of electrical energy and explores the fuels to power generators.

Fix-It Handyman

- Youth will learn to fix, repair and make useful items around the home, and develop workable solutions to problems.
- They will learn the proper selection, care and use of tools.
- They will develop mechanical skills, acquire a feeling of accomplishment, and learn to solve problems and make decisions.

Electronics

See also the last book in the Electric Energy Series.

Engine/Tractor/Field Start Your Engines

- Youth will learn about basic small engine parts, tools of the trade, safety issues and what makes small engines work.
- They will learn planning and organizing, comparing and measuring, making decisions, communicating, being safe, and solving problems.

Wood Science/Industrial

Woodworking

- Youth will learn measuring, squaring, using hand and coping saw, sanding, nailing, screwing, and applying penetrating finish.
- They will learn bevel cutting, using a scroll/jig saw, drilling, bolting, gluing, and painting or varnishing.
- They will learn miter or bevel cutting, lathing, dadoing, rabbeting, staining, and using a dowel joint.
- They will learn routing, mortise and tenon joint, miter or bevel cutting, dadoing, rabbeting, and planing.

Wood Science

- Youth will learn to build things out of wood and wood products. In doing this, they will learn to mark and measure, cut, sand and smooth, drive and pull nails, use glue and wood finishes, and do electric wood burning.
- They will learn about the forest products industry, and woodworking tools and machinery.

Physical Sciences

- Youth will participate in a variety of science experiments like building cars out of soda cans, film canister rockets, and cheesemaking.

Astronomy

Astronomy: “It’s Out of This World” (Gr 4-9)

- Youth will explore and learn about the basics of astronomy. Leaders and youth will learn about astronomy together.

Chemistry

Mathematics

Physics

Cloverbuds (5-8 Year Olds)

Self-Determined

Suggested for members in 9th grade and beyond.

Self-Determined is NOT A PROJECT, but a method for carrying a project in a subject where units do not exist. Exhibits should be in the closest subject area.

Members:

- Choose a subject for the project and set goals.
- Develop and carry out a plan to reach the goals.
- Evaluate progress and report accomplishments.

Portfolios

Materials can be purchased through the county office.

Sources:

2002 Source Book

Published by the National 4-H Council

Idaho Project Selection Guide