Vermont 4-H Project Descriptions

Typically, a project has a piece of specific curriculum or an individual topic expert (e.g. a veterinarian) that guides it, with the project taking place over a long period of time (6 hours or more) in a sequential manner. An activity is more open-ended and can be a component of a project or could be an event, competition, conference, or similar type of program.

The descriptions that follow include topics likely to be explored as part of the listed project area.

Plants and Animals

Agriculture – farming or husbandry

Aquaculture – explore the cultivation of the natural produce of water, such as fish, crayfish, etc.

Beef- Explore the beef industry. Learn about breeds, health, and feed, behavior, judging and showing a calf, ethical issues, reproduction, marketing, careers, bio-security and safety and more. Members may or may not have a project animal.

Poultry – Explore the poultry industry, including turkeys, chickens, ducks, geese, pheasants, guinea hens, pigeons, quail or other species. Learn about species and breeds, eggs, feather features, health, feeding, handling, washing, managing a flock, ethics, showing and careers.

Cats –Explore the world of cats and learn how to keep your cat safe, healthy, and active. Topics include breeds, handling, grooming, feeding, budget, cat senses and behavior, the meaning of cat sounds, tricks to teach a cat, emergency situations, traveling with a cat, diseases, reproduction, genetics and showmanship.

Dogs –Explore the world of dogs and learn to train a dog for agility, obedience, showmanship or as an ideal pet. Topics include canine behavior, breed characteristics, diseases, ethics, grooming, health, nutrition, responsible breeding, service dogs, therapy dogs, dog-related careers, and the wide array of dog sports.

Dairy - Explore the dairy industry, from raising a cow to dairy science and ethics to manufacturing and marketing dairy products. Topics include dairy cattle breeds, nutrition, feeding, identify parts of dairy cattle, desirable traits, stages of calving and care, and grooming and showing.

Goats –Explore the goat industry and learn about management, health, feeding, milking, fitting, breeding, pedigrees, quality assurance, genetics, national industry issues, and showing.

Horse – Explore the horse industry and learn about the care and management of horses, breeds, behavior, careers, as well as safety issues. We do not teach riding as part of the project.

Rabbits – Explore the rabbit industry and learn about breeding, handling, showing, health and disease, pedigrees, record keeping, marketing and careers. Be a good rabbit herdsman or train your rabbit in agility.

Sheep- Explore the sheep industry. Learn to raise and show purebred or crossbred yearling ewes, aged ewes or market lambs. Topics include budgeting, digestive systems, reproduction, genetics, lambing, ethics, marketing and careers.

Pets – Learn about a variety of small pets, such as birds, guinea pigs, iguanas, snakes or frogs. Topics include feeding, housing and daily needs, pet selection, pet body parts identification, pet art, pet communications, handling, genetics and reproduction.

Swine – Explore the swine industry, including market hogs, breeding hogs, or both. Raise or show one or more purebred or crossbred gilts, barrows or litters. Topics include breeding, health, feeding, fitting and showing, marketing and careers.

Gardening and Horticulture –Explore the world of gardening and learn about the parts of a plant, photosynthesis, cross-pollination, soil, erosion, plant classification, greenhouses, and careers in horticulture.

Cavy – Learn about the care, nutrition and management of the cavy.

Llama – Explore the llama and alpaca industry and learn how they make excellent pets and working animals, and also produce wool for textiles. Learn about care, grooming, feeding, training, social behavior and communication, fiber types, guard llamas, showing, judging and careers.

Communication Arts

Communication Art – could be signing or learn how to express yourself and communicate better. Nonverbal, verbal, and written activities will stretch and strengthen your communications skills, whether you're talking to a friend, writing, or making a presentation to a group. Learn about communication careers, writing resumes, interviewing for a job, dealing with anxiety and much more.

Public speaking – Learn what makes a great speech, make one and present it publicly.

Demonstration – Learn how to properly prepare and give a demonstration or talk. This may include any number of props such as posters and PowerPoint.

Reporting Media – Learn the types of media reporting do a type of report and present it publicly.

Performing Arts -Develop and present stories through acting, mime, movement, puppetry, and technical theater. Learn acting techniques and improvisation, costume and set design, makeup techniques, and technical stage lighting and sound. And if you're musically inclined, write a musical, sing or play an instrument

Visual Arts –Learn skills, techniques and tools in drawing, painting, sculpting, printing, fiber arts, or graphic design. Visit art galleries, art shops, or an artist's studio. Let your imagination run wild and express yourself creatively while you strengthen your abilities.

Photography and Video -Tell your story using photography! Learn about equipment basics, taking sharper pictures, lighting and flash techniques, photo composition, approaches, sequencing, and evaluating photographs. Use multiple cameras and even assemble a whole production team. Learn about video production and filmmaking, including composition, camera and lighting techniques, editing and more.

Science and Technology

Science and Technology – ability to understand applied knowledge, expertise and disciplines attained through study of the physical world.

Biological Sciences-the discipline and knowledge base applied to life and living processes.

Entomology and Bees - In this project, identify insects, make a collection net or jar, pinning block, spreading board and display case. Learn about experiments, research and careers.

Marine Science-Learn about marine biology including plant and animal life in the ocean. Marine science focuses on biological aspects of the ocean while the oceanography focuses on the geological and meteorology aspects.

Plant Science –Learn about the parts of a plant, photosynthesis, cross-pollination, soil, erosion, plant classification, greenhouses, and careers in horticulture/agronomy.

Veterinary Science – Learn about preventing disease and improving the health of animals. This could be the start of a career as a vet! Topics include basic anatomy, health and disease, normal and abnormal conditions, and preparing for veterinary careers

Technology and Engineering- learn to achieve a practical purpose through invention, planning, or manipulation

Aerospace -Build and launch a rocket, design an airplane or fly your own hot-air balloon. Learn about the science of flight by doing hands-on activities like these and more.

Computer Technology- Explore the impact of computers on society, upgrade a computer, build a website or write software. Identify computer components, operating systems, and the building, maintenance and repair of computers. Choose to focus on hardware, software or the Internet. You don't need to own a computer to participate.

Electricity – Learn how electricity works. Build circuits and test voltages. Learn about wiring, lighting, safety issues, and more. Activities may include building a rocket launcher, burglar alarm, flashlight, compass, electromagnet or electric motor.

Engines, tractors, field equipment – Learn about internal and external engine parts, tools, rules and regulations, safety issues, and career possibilities. Troubleshoot problems with an engine, rebuild it and operate it safely.

Wood Science –Learn skills wood-workers use, such as measuring, squaring and cutting a board, sanding, drilling, and driving nails. Routers, joiners, table saws, tape measures, drills, sand paper and glue are some of the tools you will use to build projects of your choice

Industrial Arts – making and using technical plans; developing dexterity and familiarity with tools, machines and processes for construction and repair.

Physical Science - the natural sciences that deal primarily with non-living materials.

Digital Photography – Learn how newer digital cameras work, how to download photos and manipulate them to enhance or edit your images.

Personal Development

Personal Development – expand your own knowledge and capabilities by learning your strengths and weaknesses and ways to overcome or enhance those attributes.

Career Exploration – Learn about career opportunities through individual or group study under the direction of a leader.

Hobbies & collections – Hobbies are [practiced for interest and enjoyment. Various 4-H Hobby projects may focus on collecting, art, making or tinkering.

Leadership - Learn about yourself and what you can do. Learn how to work with and lead others at home, at school, and in the community.

Environmental Stewardship

Earth, Water, Air -Study physio-chemical aspects of the environment; the lithosphere (geology, minerals), hydrosphere (water), and atmosphere (weather and climate)

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.

Wildlife and Fisheries - Learn about wildlife populations, diversity, and the elements that impact their habitats, and how to become a steward of the land. Activities may include tracking wildlife, building nesting boxes, and exploring careers such as wildlife biologists and naturalists. Learn about fish species and habitats; experiment with fishing gear, baits and lures; tie knots, lines and flies; research fishing regulations; and explore careers related to fishing

Outdoor Education/Recreation - Develop a greater awareness, understanding and appreciation of nature and our relationship to it through fun, hands-on discovery and exploration activities, including: Team building, Nature activities, Crafts, Songs, Campfire activities/stories, Outdoor skills, Recreation activities.

Shooting Sports - Explore firearm safety and the importance of protecting Vermont's natural resources. Learn the safe use of pistols, rifles, shotguns, black-powder, archery, and wildlife/hunting skills.

Waste Management (recycling) - consider the waste stream from extraction or harvest of raw materials through enviroshopping to disposal by land filling or incineration. Waste management includes waste reduction, composting, re-use, recycling, waste-to-energy, waste stabilization and disposal.

Consumer and Family Sciences

Childcare and Development - Discover how to be self-reliant and responsible, how to handle emergencies, and develop home-alone skills. Learn about home safety and age-appropriate

toys, nutritious snacks for children, and how to create a poem, story or game.

Clothing and Textiles - Learn the basics of sewing construction and how to make simple clothing and accessories. Develop skills in design and fashion illustration, business and marketing, technology in sewing, and learn about careers in the textile industry.

Consumer Education - Improve your money management skills and become a more informed consumer. Learn to distinguish between wants and needs, identify, set and evaluate goals, track expenses and income, and more.

Home Environment - Learn all about the home environment from decorating a room and arranging furniture to landscaping.

Healthy Lifestyles

Food and Nutrition - Learn how to pick healthy foods, prepare nutritious meals, and make smart food purchases. Discover the science behind making food and food preservation and keeping it safe. Explore careers related to food and nutrition.

Healthy Lifestyles - Discover the benefits to being fit and design your own personal fitness plan; explore hygiene and nutrition; or learn first aid skills such as how to treat cuts, nosebleeds, bee stings, and broken bones, assemble a first aid kit; and interview members of the medical profession

Safety – Learn to keep yourself safe and help others stay safe, too. Learn about safety for water, fire, electricity and recreational vehicles (bikes, ATVs, snowmobiles, jet skis, boats, etc.). Identify farm hazards and make them less dangerous. Make a first aid kit or a winter survival kit.

Bicycle - Learn the essentials for getting started safely and successfully, including how to choose a bike, bike maintenance and repair, and road rules to make riding safe and fun. Join a cycling club in your community, ride off-road, tour, or race!

Citizenship

Citizenship and Civic Education - Explore what it means to be an active citizen and leader in your community. Learn leadership skills through community involvement to: create community working with others in leadership roles; motivate yourself and others to greater personal and public achievements understand how to contribute to your community, your state, your economy, your country, and the world; create a personal and public vision for life in the 21st century.

Community Service – Make a difference in the lives of others, discover what it means to be an active citizen, and build a commitment to take action in new and exciting ways. In service learning, youth choose where and how to make a difference, and then carry out the plan. Learn how to identify community needs, plan a service project and execute your idea.

Definitions from:
www.nj4h.ritgers.edu
www.msue.msu.edu
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