

# 2024-25

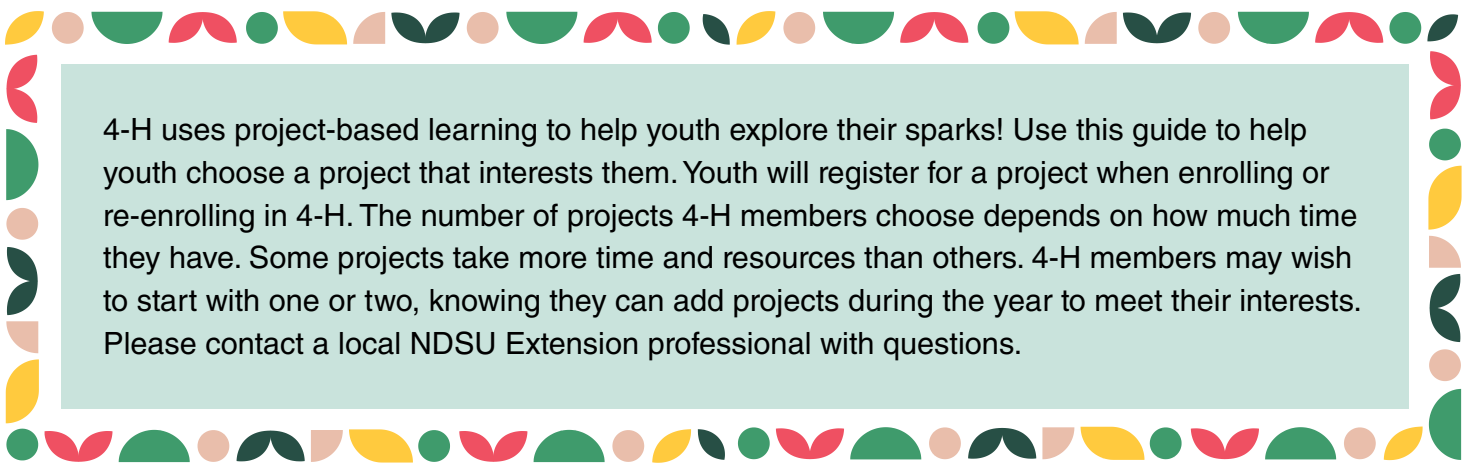
## North Dakota 4-H

# Project Guide



NDSU

EXTENSION



4-H uses project-based learning to help youth explore their sparks! Use this guide to help youth choose a project that interests them. Youth will register for a project when enrolling or re-enrolling in 4-H. The number of projects 4-H members choose depends on how much time they have. Some projects take more time and resources than others. 4-H members may wish to start with one or two, knowing they can add projects during the year to meet their interests. Please contact a local NDSU Extension professional with questions.

## Steps to Enroll in North Dakota 4-H

Youth participate under the direction of a trained adult and within the scope of North Dakota State University Extension. The 4-H program year begins September 1 and ends August 31.

1. Enroll online at <https://v2.4honline.com>. If you have been a North Dakota 4-H member, you already have an account. Please do not create a new profile or account to re-enroll. Your email address is your login. If you do not remember your password, click, "I forgot my password."
2. Select one or more projects you plan to study in-depth for the year. Use this guide if you have questions about what the project includes or the project definition.
3. If you are re-enrolling but will not be taking a project you enrolled in last year, edit and delete that project.

Choosing projects is just the beginning. The North Dakota **4-H Google Drive** provides 4-H members, families and volunteers quick access to 4-H resources, forms and other tools to navigate the 4-H year. The ND 4-H website includes access to the **4-H Google Drive: Member and Volunteer Resources** from [www.ag.ndsu.edu/4h](http://www.ag.ndsu.edu/4h).

## DEFINITIONS

### Project Area

An area of study over the 4-H year

*Example:* Animal Science Project Area

### Project

A narrow area of study under the larger Project Area

*Example:* Horse

### Project Sheets

These helpful sheets tailored to each project provide suggestions to promote personal growth through hands-on learning and exhibit ideas for county fairs, 4-H Achievement Days and the North Dakota State Fair.

### Exhibit

An item or animal that relates to a project in which the 4-H member is enrolled may be entered for judging at a county fair or 4-H Achievement Days.

**Living Exhibit** – Involves the 4-H member participating in Communication Arts, Clothing Revue, Project Expo, 4-H Engineering and Design Challenge, and Consumer Decision Making contests

**Static Exhibit** – A non-living item or display related to a project in which the youth is enrolled

**Animal Exhibit** – A living animal related to a project in which the youth is enrolled

### 4-H Online

4-H Online is the registration portal for North Dakota 4-H that opens near September 10 each year. Cloverbud members, 4-H members and 4-H volunteers must enroll or re-enroll each year. <https://v2.4honline.com>

### FairEntry

FairEntry is the registration portal for county fairs and Achievement Days. Enrollment information will sync from 4-H Online, the 4-H enrollment portal. Each county will notify 4-H members when FairEntry opens for county fair or Achievement Days registration.

## Achievement Days

Similar to a county fair, some counties refer to an annual 4-H event for members to showcase what they have learned in their projects as Achievement Days. These include static and animal exhibit judging as well as certain living exhibits such as Clothing Revue.

## Cloverbud Members (Ages 5-7)

Cloverbud experiences are designed as a series of short-term, structured activities to help youth gain self-understanding, practice social interaction skills and develop positive attitudes. The Cloverbud program focuses on age-appropriate skills, abilities and involvement. Cloverbuds do not participate in competition because it is not developmentally appropriate for this age group. Youth may enroll as Cloverbuds if they are between the ages of 5 and 7 on September 1 of the current year.

## Regular Members (Ages 8-18)

Youth who are 8 years old or older on September 1 are considered regular 4-H members. Youth who turn 19 prior to the beginning of the 4-H year (September 1) are not eligible to re-enroll in 4-H.

## North Dakota State Fair 4-H Division Exhibit List (aka State Fair Book)

This is the official guide for county fairs, Achievement Days and the North Dakota State Fair. It includes Project Areas, Projects, Class and Group numbers for exhibiting as well as general rules and guidelines.

**Class** – A 4-H member registers an exhibit using a unique number under the project/project area. This is a procedure administration uses to organize the large number of exhibits entered at the county and state level.

**Group and Subgroup** – These subcategories within a project are an organizational method for arranging similar exhibits to allow for consistent judging.

## Cost of 4-H Materials

There is no fee associated with enrolling in North Dakota 4-H at the state level. Some counties may charge a small enrollment fee. Yearly costs to the participant vary according to the learning experiences and projects chosen by the 4-H member. There may be a charge for some North Dakota 4-H materials to cover printing and distribution costs.

National 4-H has curricula available at <https://shop4-h.org> for purchase. Check with the county office before ordering as they may have curriculum available. NDSU Extension professionals can answer questions about the cost of 4-H materials.

## Planning and Recording Project Learning

Keeping records of learning activities and accomplishments is an important part of the 4-H experience. North Dakota 4-H has resources available to help youth plan their projects and record their accomplishments. Caring adults can help 4-H members select projects that spark their interests and encourage them to set goals. Goal setting builds important life skills, and empowers youth to decide what they want to learn, when they want to learn it and how to identify adults who can help them along the way. Follow these steps to plan your project:

1. Consult the Project Sheets at [www.ag.ndsu.edu/4h](http://www.ag.ndsu.edu/4h) to discover what project learning is all about. These sheets contain valuable information including curriculum resources and exhibit ideas.\*
2. Record project progress and related activities.

\*4-H planning and recordkeeping resources are on the ND 4-H Member and Volunteer Resources Google Drive at [www.ag.ndsu.edu/4h](http://www.ag.ndsu.edu/4h). Click on the Projects link to access folders for all Project Sheets and Project Recordkeeping resources.





## 4-H Pledge

I Pledge  
my HEAD to clearer thinking,  
my HEART to greater loyalty,  
my HANDS to larger service, and  
my HEALTH to better living  
For my club, my community,  
my country, and my world.

## 4-H Motto

To Make the Best Better

## 4-H Colors

White and green

## 4-H Creed

I believe in 4-H work for the opportunity  
it will give me to become a useful citizen.

I believe in the training of my HEAD for the power  
it will give me to think, to plan, and to reason.

I believe in the training of my HEART for the nobleness  
it will give me to become kind, sympathetic, and true.

I believe in the training of my HANDS for the dignity  
it will give me to be helpful, useful, and skillful.

I believe in the training of my HEALTH for the strength  
it will give me to enjoy life, to resist disease,  
and to work efficiently.

I believe in my world, my country, my state,  
and my community, and in my responsibility for  
their development.

In all these things I believe, and I am willing to dedicate  
my efforts to their fulfillment.

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- Global and Cultural Education
- Understanding Physical and Intellectual Development
- Volunteerism and Service-Learning

## CLOVERBUD ..... 7

### Projects

This is the project for all youth ages 5-7. These youth do not select any additional projects in 4-H Online.

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### Projects

- Communication (Speaking/Radio/TV, Writing/Print, 4-H Banner)
- Performing Arts (Dance/Movement, Clowning/Drama/Theater, Music/Sound)
- Visual Arts (Arts and Crafts, Drawing and Painting/Ceramics and Plasterware, Graphic Arts and Design, Photography)

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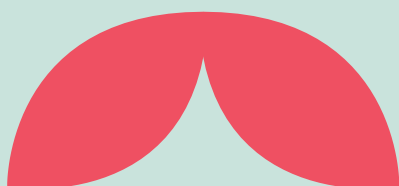
### Projects

- Digital Technology (Computer and Digital Technology, GPS/GIS, Robotics)
- Engineering (Aerospace, Chemical, Civil, Electrical, Mechanical)
- General Sciences and Math (Earth Science, Life Science, Mathematics, Physical Science)
- Industrial Technology (Bicycle, Electricity, Engines/Tractors/Field Equipment, Welding, Woodworking)

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- Range Judging
- Chef-for-a-Day Grill-off Contest
- Clothing Revue Contest
- Communication Arts Contest
- Consumer Decision Making Contest
- Engineering and Design Contest
- Project Expo Contest
- Shooting Sports Contests

# Individual Project Descriptions



## Animal Science Project Area

Exploration of animal production, domestic animals and veterinary science

- **Alpacas/Llamas Project** – Domesticated camelids
- **Animal and Meat Evaluation Project** – Learning about horse judging, livestock evaluation and dairy judging, and meat quality evaluation
- **Cat Project** – Domesticated feline animals commonly referred to as house cats
- **Cattle, Beef Project** – Bovine raised for the efficient production of red meat
- **Cattle, Dairy Project** – Bovine bred and developed for milk production
- **Dog Project** – Domesticated canine related to the foxes and wolves and raised in a wide variety of breeds
- **Goat, Dairy Project** – Goats bred and developed for milk production
- **Goats, Meat and Fiber Project** – Goats bred and developed for meat, fiber and hair
- **Horse Project** – Equine breeding, care and training for riding, pleasure and/or draft purposes
- **Poultry, Poultry Science, Embryology Project** – Domesticated birds, chickens, pigeons, waterfowl and other warm-blooded feathered animals kept for eggs or meat, and embryology, which is the biology dealing with poultry embryos and their development
- **Rabbit Project** – Any of several small domesticated mammals related to ordinary hare
- **Sheep Project** – Small ruminant mammals bred for meat or wool production
- **Small Animals/Pocket Pet Project** – Small domesticated animals raised and cared for not listed in any other category, which include cavy (guinea pigs), fish, reptiles and other small domesticated animals kept as pets, including small birds
- **Swine Project** – Pig or hog bred for meat production
- **Veterinary Science Project** – The study of prevention, alleviation or cure of animal diseases and injury

## Ownership and Lease Deadlines for Exhibiting Live Animals

Animals must be owned or leased and managed by the 4-H member who enters the animal. Animals exhibited must meet rules regarding the length of management.

- Market beef animals must be owned or leased, with daily management by the exhibitor, by March 1 of the current year.
- Beef breeding, horse and all dairy, swine, sheep and goat exhibits must be owned or leased, with daily management, by May 1 of the current year. Any animal born after May 1 must be a progeny animal owned from the date of its birth by the exhibitor.
- An ownership date is not established for poultry and rabbits; however, exhibitors must have the animals in their possession a minimum of 30 days before their county show or the State Fair show, whichever is held first. A May 1 guideline is suggested for all rabbits and poultry, except for those that would not be of appropriate age at that time.



## Civic Engagement Project Area

### Preparation for roles in society, legal proceedings, public policy and relationships

- **Civic Education (Local, State, National) Project** – Promotes understanding of government and active participation in community life and community problem-solving
- **Global and Cultural Education Project** – Projects designed to build knowledge and skills related to global and cultural competency, including global/cultural awareness and/or connectedness, language, family traditions, genealogy and heritage
- **Understanding Physical and Intellectual Development Project** – Develops understanding about the spectrum of physical and intellectual development through relating, connecting and showing compassion for a range of abilities
- **Volunteerism and Service-Learning Project** – Volunteerism is learning about the importance and nature of service done of one's own free will for the benefit of others. Service-learning is acquiring personal skills and knowledge by serving others through organized school-based or community-based programs. Volunteerism and service-learning include intentional planning followed by personal reflection.

## Communication and Expressive Arts Project Area

### Skills of expressing, imparting and conveying information to others

- **Communication Project** – The interchange of thought or information as a verbal or written message
  - **Speaking/Radio/TV:** The study of verbal communication to effectively articulate messages, information and ideas
  - **Writing/Print:** The study of written communication to effectively articulate messages, information and ideas
  - **4-H Banner:** Communicating a message about 4-H and 4-H ideals that may identify a group or club, advertise a cause or promote the 4-H program
- **Performing Arts Project** – Forms of creative activity that are performed in front of an audience
  - **Dance/Movement:** Rhythmic and harmonized body movement, spontaneous or controlled
  - **Clowning/Drama/Theater:** Performance and appreciation of acting, includes improvisation
  - **Music/Sound:** Vocal and instrumental performance, appreciation or theory
- **Visual Arts Project** – Expresses emotion or showcases beauty using line, color, form, pattern and texture in two and three dimensions
  - **Arts and Crafts:** Knowledge or skill requiring some degree of manual dexterity in the production of an aesthetic object (flower arranging, cake decorating, glue solutions, jewelry making, leathercraft, metal arts, prepackaged craft kits, scrapbooking, wood arts)

- **Drawing, Painting, Sculpting and Ceramics:** Drawing is the study and application of different drawing media, methods and techniques. Painting is the study and use of acrylics, oils, pastels and mixed media. Ceramic objects are formed with clay and hardened by firing. Plasterware objects are formed with plaster.
- **Graphic Arts and Design:** Graphic art is a visual art based on line and tone including printmaking, etching and computer graphics. Graphic design is a visual communication technique that relies on the creation and use of images and text to represent an idea or convey a message.
- **Photography:** The art or practice of taking and editing photos

## Environmental Education Project Area

### General studies of human life and its relationship to other life forms on earth

- **Energy Project** – Exploration of the basic principles of thermodynamics and physics and how these principles apply to energy use in a variety of settings including home, farm and transportation -- for example, exhibits in solar, wind and biofuels
- **Entomology/Bee Project** – The discipline of zoology that deals with insects and their habitats, including bees and beekeeping, which is defined as breeding bees especially for honey
- **Environmental Stewardship Project** – Cultivation of a personal commitment to responsible resource management that contributes to the quality of life for present and future generations. This relates to knowing about and caring for the environment and applying this concern through responsible action for the rest of our lives, including composting, recycling and reuse.
  - **Composting:** Transformation of organic waste to a useful mulch or soil amendment
  - **Recycling:** Converting used materials to a new purpose with the goal of reducing energy use, reducing consumption of natural resources, and decreasing waste going to landfills and incinerators
- **Forests, Rangeland and Wildlife Project** – Studies of renewable natural resources, mostly on non-cultivated and non-urban lands
  - **Forestry:** Study of forested lands used for timber production, recreation, wildlife habitat and watershed
  - **Range Science:** Study of wildlands used for grazing of domestic livestock, wildlife habitat, timber, watershed and recreation. Rangelands are generally too rocky, steep or arid for cultivation.
  - **Wildlife and Fisheries:** Study of wildlife, birds and fish species in terms of life history, geographic distribution, biodiversity, habitat, human utility, management and aesthetic values. Includes bird watching, aquarium projects and marine science, which is the discipline relating to sea life and its management.
- **Outdoor Education/Recreation Project** – Programs, activities and projects that involve using and enjoying the natural environment
  - **Adventure/Challenge:** Outdoor activities that challenge the human spirit and body, such as hiking, primitive camping, survival training, orienteering and ropes courses
  - **Hunting and Sportfishing:** The hunting of wild game and harvesting of fish, especially for food or sport
- **Shooting Sports Project** – The use of firearms and archery equipment to facilitate personal goal setting, sportsmanship, confidence and safety

# Family and Consumer Science Project Area

## Development of consumer-oriented, family-related skills

- **Child Development and Child Care Project** – Programs, activities and projects focused on the developing child and care for children, including babysitting, parenting and family life education
- **Consumer Education and Money Management Project** – Programs, activities and projects related to personal money management and wise consumer purchasing
- **Home Environment Project** – The art and science of understanding people's behavior to create functional living spaces that are aesthetically pleasing
- **Sewing and Textiles Project** – Programs, activities and projects related to clothing construction, fabric selection and design, including fiber arts. A garment is an item of clothing. A personal accessory is an item used to contribute to a wearer's outfit. A home accessory is an item used to enhance a room or interior space.
  - **Embellishment and Repurposing:** Embellishment is adding to a garment or accessory to personalize or make it more attractive. Repurposed implies the garment, personal or home accessory is given a different purpose than the one originally intended.
  - **Sewing:** A garment, personal item or home accessory that is sewn by hand or machine
  - **Crochet:** A fiber art item created by looping yarn with one hooked needle to make a garment or accessory
  - **Embroidery:** The art of decorating a material with needle and thread that involves a variety of stitches, embellishments, styles and methods. Cross-stitch is a type of hand embroidery that uses the basic X-shape stitch. Needlepoint is a surface embroidery technique that covers the top of the fabric or plastic canvas and may use multiple stitch types.
  - **Felting:** The process of producing a textile or fabric by combining and compressing the loose fibers, wool or hair. Needle felting uses a specialized felting needle and wool fibers to create an endless array of shapes and objects.
  - **Knitting:** A fiber art project created by interlacing yarn or thread in a series of connected loops with a pair of needles to make a garment or accessory
  - **Macramé:** A fiber art item made by knotting cord or string in patterns to make decorative articles
  - **Quilting:** The process of joining a minimum of three layers of fabric together either through stitching manually using a needle and thread, or mechanically with a sewing machine or specialized longarm quilting system. An array of stitches is passed through all layers of the fabric to create a three-dimensional padded surface. The three layers are typically referred to as the top fabric or quilt top, batting or insulating material, and the backing.

# Foods and Nutrition Project Area

## The study of food and how it works in the body

- **Baking and Cooking Project** – Preparation of food and the act of being nourished by wholesome and sustaining food
  - Breads, Yeast
  - Breads, Other
  - Brownies/Bars/Cookies
  - Cakes/Cupcakes/Muffins
  - Candy/Pies/Advanced Food Skills
  - Food and Kitchen Safety
  - Microwave Cooking
- **Food Preservation Project** – Applying science-based knowledge to prevent deterioration and spoilage of food products
  - Canned Fruits
  - Canned Jams/Jellies
  - Canned Pickles/Relishes
  - Canned Tomato Products
  - Other Food Preservation Methods
  - Pressure-canned Products
- **Food Science and Nutrition Project** – The study of nutrients in food that nourish, sustain or supply humankind, including the study of animal tissue used for human consumption. Includes nutrition displays such as MyPlate, food insecurity, food budgeting, measuring basics and food labeling.

# Healthy Living Project Area

## Studies related to a way of living or state of health for mind and body

- **Mental and Emotional Health Project** – Relates to self-understanding, self and stress management, and interpersonal relationships. Could include chemical health defined as the effects of chemical substances on one's physical or mental well-being.
- **Personal Safety Project** – Relates to being secure or protected from hurt, injury, harm or loss. Includes ATV safety, automotive and bicycle safety, emergency preparedness, tractor safety education, water safety and snowmobile safety.
- **Physical Health Project** – Relates to the body's well-being, maintenance of well-being, and learning about and participating in exercise of any kind. Includes fitness and sports, growth development, disease, and first aid/CPR.



# Personal Development and Leadership Project Area

Relating to individual influence, excellence, conduct, motives, characteristics, traits, attitudes or habits along with employability skills

- **Career Exploration and Workforce Preparation Project** – Learning about jobs, callings and professions, as well as the expectations and rewards of each interest, along with workforce preparation and employability skills
- **Economics/Business/Marketing Project** – The study of the principles underlying commerce, merchandising and entrepreneurship
- **Leadership Project** – The development of qualities necessary to work with and through others to accomplish goals. Includes communication styles, conflict management, decision-making, facilitation, planning, goal setting, problem-solving, inclusion, diversity and self-confidence.
- **Personal Development Project** – Expanding knowledge of self and expanding capabilities, personal growth, increased self-awareness and personal capacity. Includes character education and general life skills development.

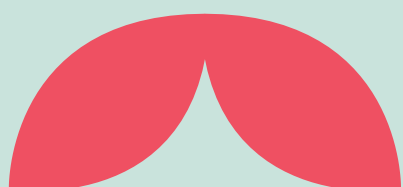
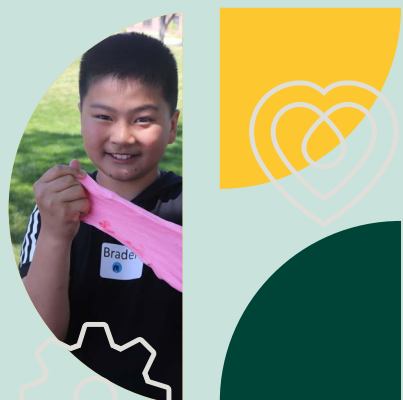
## Plant Science Project Area

The study of how plants grow, including how plants are used by humans and affect our world

- **Agronomy Project** – Programs, activities, and projects related to crops, weeds, pest management, soils and soil conservation
  - **Crops:** A plant product grown and harvested for profit or consumption
  - **Pest Management:** The method of reducing or eliminating different types of unwanted pests in agricultural production
  - **Soils and Soil Conservation:** Science concerned with the formation, nature, ecology, classification and conservation of soil
  - **Weeds:** Plants that interfere with the growth and production of desirable plants
- **Botany Project** – The study of plants and how they grow, including plant genetics, reproduction and plant responses to the environment
- **Horticulture Project** – Programs, activities and projects related to flowers, indoor plants, fruits, vegetables, ornamental plants and herbs
  - **Fruits/Herbs/Vegetables:** Desirable plants cultivated for their production of edible herbs, fruits, flowers or vegetables
  - **Flower Gardening/Indoor Plants:** Desirable plants cultivated for their appearance and/or ornamentation either outdoors, indoors, in or out of containers as a hobby or business
  - **Ornamental Horticulture:** Plants cultivated primarily for landscaping

# STEM: Science, Technology, Engineering, Math Project Area

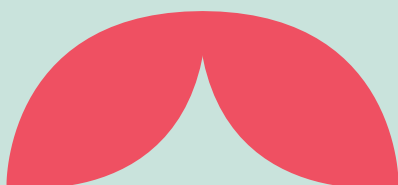
- **Digital Technology Project** – The branch of scientific or engineering knowledge that deals with the creation and practical use of digital or computerized devices, methods and systems
  - **Computer and Digital Technology:** The applied science related to or concerned with programmable electronic devices that can store, retrieve and process data. Includes use and integration of computers and established and emerging digital technologies (QR codes, tablets, smartphone apps, digital game design) as tools for science discovery and 4-H projects.
  - **GPS/GIS:** Includes programs, activities and projects related to the use of Global Positioning System/Geographic Information System (GPS/GIS) technologies and skills with application in real-world settings to enhance the understanding of our world and solve problems. Includes geocaching.
  - **Robotics:** Relating to or utilizing devices constructed or working by the methods of physics. This includes design, construction, operation and application of robots and computer systems for their control, sensory feedback and information processing. Includes drones and LEGO robotics.
- **Engineering Project** – The practice of using science, math and the engineering design process to solve problems
  - **Aerospace Engineering:** The branch of engineering that deals with flight, the earth's atmosphere and space
  - **Chemical Engineering:** The branch of engineering that deals with the manufacture of products through chemical processes. These products include, among others, pharmaceuticals, pulp and paper, petrochemicals, microelectronic devices, polymers, and products used in food processing and in biotechnology.
  - **Civil Engineering:** The branch of engineering dealing with the design and construction of highways, bridges, tunnels, waterworks, harbors, etc. Includes LEGO construction.
  - **Electrical Engineering:** The branch of engineering that is concerned with the study, design and application of equipment, devices and systems that use electricity, electronics and electromagnetism.
  - **Mechanical Engineering:** The branch of engineering that specializes in the design, production and uses of machines. The physics of mechanics is widely used in mechanical engineering. Includes LEGO simple machines.
- **General Sciences and Math Project** – Study of the physical world
  - **Earth Science:** Studies that address mostly physio-chemical aspects of the environment
    - **Earth:** The Lithosphere – geology and minerals: Studies of sedimentary, igneous and metamorphic rocks, minerals and geologic processes through Earth's history
    - **Water:** Hydrosphere – Studies of the universal solvent that makes life possible, including water supply and uses, the water cycle, water conservation and water pollution
    - **Air:** Atmosphere – weather and climate: Studies of local or regional atmospheric phenomena occurring over short- and long-term trends that are expressed as regional climates
  - **Life Science:** The discipline and knowledge base applied to life and living processes





- **Mathematics:** The science of numbers and their operations
- **Physical Science:**
  - **Astronomy:** The science that deals with celestial bodies
  - **Chemistry:** The science that deals with the composition, structure and properties of substances and of the transformation that they undergo
  - **Physics:** The science that deals with matter and energy and their interactions in the fields of mechanics, acoustics, optics, heat, electricity, magnetism, radiation, atomic structure and nuclear phenomena
- **Industrial Technology Project** – The study related to the design, building and use of engines, machines and structures
  - **Bicycle:** Human-powered two-wheeled vehicles
  - **Electricity:** Relating to circuits, wiring and flow of electrical power
  - **Engines, Tractors and Field Equipment:** Programs, activities and projects related to equipment used for transportation, agricultural production, and lawn or garden applications, including automotive
  - **Welding:** To build, modify or repair steel-based objects by heating the surfaces to the point of melting using a blowtorch, electric arc or other means, and uniting them by pressing, hammering, etc.
  - **Woodworking:** Designing, constructing or repairing objects from wood and becoming familiar with woodworking tools and machines

# Judging Teams and Contests



Judging teams and contests help 4-H youth develop valuable skills they need to make career and life choices. To develop self-confidence and a sense that they matter, young people need to feel they are capable. 4-H contests and judging events support positive development by offering youth opportunities to demonstrate their mastery.

## ■ Crop Judging

In this contest, 4-H members evaluate crop samples for seed and market quality factors, grade wheat samples from given data, answer soils questions, and identify crop and weed seeds and plants, insects, crop disorders, and equipment.

## ■ Dairy Judging

Participants in 4-H Dairy Judging learn about dairy cattle and the evaluation of the animal's structure and productivity. 4-H members evaluate multiple classes of dairy cattle in a variety of breeds showcasing an age range of cattle and various stages of productivity. This contest helps develop valuable skills in oral communication and critical thinking.

## ■ Hippology/Horse Demonstration/Horse Illustrated Talk

4-H Hippology team members work together to evaluate equine classes, complete an exam, solve and present a team problem, and complete station activities. Youth gain skills in teamwork, organization and time management. Youth presenters in Horse Demonstration and Illustrated Talk share their knowledge with other participants and judges on any horse-related topic using storytelling, visual aids and other public speaking tools.

## ■ Horse Judging

4-H Horse Judging teaches youth to evaluate the structure, movement, riding abilities and performance of live horses and riders. Horse Judging participation fosters self-confidence and the ability to analyze information. Participants also learn valuable skills in oral communication when presenting their reasonings.

## ■ Land Judging

Youth learn about land class factors such as soil texture, soil drainage, depth of soil, slope, and other factors and recommended land treatments to respect soil and its conservation.

## ■ Livestock Judging

4-H Livestock Judging teaches youth to evaluate the appearance of live beef, sheep, swine and goats, and to use critical-thinking skills to determine an animal's market or breeding value. Participation in this contest develops skills in critical thinking, oral communication and self-confidence.

## ■ Livestock Quiz Bowl and Horse Quiz Bowl

4-H Livestock and Horse Quiz Bowl Teams work independently and as a team to answer a vast range of questions related to animal science. Participants study a wide range of topics in preparation for questions about nutrition, anatomy, behavior, breeds, management, health, diseases and industry.



### ■ Meats Judging

Meat Judging provides an opportunity for youth interested in livestock and food science to enhance their meat science knowledge. Participants learn to grade and evaluate cuts of beef and pork, answer meat science themed questions, identify retail cuts of meat and develop communication skills by orally presenting their findings.

### ■ Range Judging

Range Judging teaches participants basic principles of plant identification and range ecology, including soil-plant interaction, plant-animal interaction and plant succession.

### ■ Chef-for-a-Day Grill-Off Contest

Young people learn the art and science of safely preparing beef in an outdoor setting providing life skills, food literacy and lifestyle choices for healthy living and potentially career development skills.

### ■ Clothing Revue Contest

4-H members model fashions they have purchased, sewn or decorated in the Clothing Revue. This contest includes the following categories:

- **Buy and Show:** Participants purchase or recycle a major item of clothing that relates to a wardrobe plan.
- **Sew and Show:** Participants construct half or more of the clothing that is modeled.
- **Decorate Your Duds:** Participants create embellishments for a garment or accessory.

### ■ Communication Arts Contest

4-H Communication Arts provides youth with opportunities to express themselves and learn the art of public speaking in a format that fits their creative style. The categories include illustrated talk, demonstration, speech, dramatic presentation, electronic presentation, mass media presentation, fish tank, for budding entrepreneurs, and Cloverbud recitations.

### ■ Consumer Decision Making Contest

Consumer Decision Making teaches youth how to make choices based on information they have learned and studied and on facts they have collected. It also helps youth learn to defend their decisions.

### ■ Engineering and Design Contest

The 4-H Engineering and Design Contest encourages youth to use physics, engineering, humor, creativity and storytelling to create an overly complex contraption to complete a simple task.

### ■ Project Expo Contest

Project Expo provides youth with an experience to expand their learning in their chosen project area through planning, preparing and displaying an article or an educational exhibit to share what they have learned with others.

### ■ Shooting Sports

Shooting Sports helps youth learn marksmanship, and the safe handling and responsible use of firearms and archery equipment. This project is often an entry point for learning about the principles of hunting, wildlife conservation and outdoor adventure.

To find more information, including videos, about each contest, go to [www.ag.ndsu.edu/4h](http://www.ag.ndsu.edu/4h), then under 4-H Members & Volunteers, click on Contests.

To join a judging team or learn more about a contest, please contact your local NDSU Extension professional.



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**For more information on this and other topics, see [www.ag.ndsu.edu/4h](http://www.ag.ndsu.edu/4h)**

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