

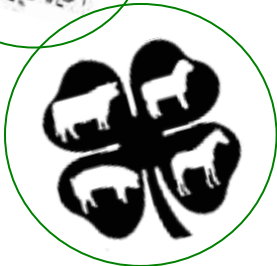
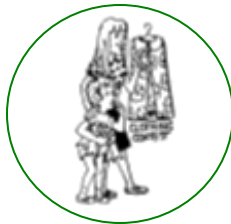
EXPLORING



RING

The Possibilities

Grant County
Suggested Project Selection
Guide



Welcome to the exciting world of 4-H! Now that you have joined 4-H, what would you like to do?

There are more than 50 different project areas in South Dakota 4-H. and if you don't see what you are interested in, you may also design your own project(s).

When you are selecting projects, think about these things...

- Something new that you would like to explore.
- A hobby that you would like to learn more about.
- Something that is fun for you.
- A topic in which you can involve your parents, relatives, friends, and other 4-H members.

Here are some suggestions for exhibits in your project areas. In addition to these suggestions, each project area leaves the possibilities wide open for you to create exhibits that fit your learning and ideas.

4-H members will not receive a higher placing just because they use one of the suggestions listed, so have fun learning and doing!

While there are still several general rules and guidelines that apply to all projects, including sizes for posters, displays and floor-sized exhibits, you are now able to exhibit almost anything that reflects your learning!

Sincerely,
Sara Koepke

Sara Koepke
Grant County 4-H Youth Program Advisor



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Aerospace

- The fascination of flying an airplane, launching a rocket, conquering space, and becoming an astronaut or pilot will come alive as you explore aviation and space. Learn about flying kites, hot air balloons, remote control airplanes, gliders and space shuttles.

Model rockets built from kit (flyable)—

Rockets should be ready for flight except engine need not be installed. Recovery system should be in place and operative. Members should be familiar with the model rocketry safety code approved by the National Association of Rocketry.

Model airplane and gliders built from kit (flyable)—should be balanced and ready for flight. Do not include fuel for gas powered models. Radio equipment may be excluded for RC models. All airplanes exhibited must have been successfully launched prior to South Dakota State Fair.

Model airplane built from kit or own design (static or stationary model not designed to fly). Member will be evaluated on construction techniques, knowledge of what makes an airplane fly and information about the aircraft represented by the model

Water rockets—should be constructed using 1 or 2 recyclable plastic soft drink bottles. Must have tail fans attached to withstand launch.

Display of aviation principles

Display of in-flight procedures

Poster/pictures, such as places visited; first plane ride; programs participated in; types of planes

Booklet on specific types of planes; knowledge of how planes/rockets work

Report (could include interviews with people) on history of space flight; history of space exploration/

astronauts; careers; aerospace related to agriculture; how planes/rockets work; principles of flight; military air battles

Story you have written about aerospace or space flights, rockets, etc. (could be science fiction)

Any other model (i.e. helicopter, etc.)

Booklet on specific types of planes; knowledge of how planes/rockets work

Automotive, Small & Tractor Engines

- Explore basic principles of how engines work. Learn about engines in lawn mowers, motorcycles, farm machinery, and cars. Discover how to safely operate and care for machinery.

Learn how to operate machines safely.

Learn how to properly maintain a vehicle.

Evaluate the cost of owning and operating a vehicle.

Practice assembling and disassembling an engine.

Keep records of purchase, operating and maintenance costs.

Demonstrate how to time an engine.

Beef

- Gain experience in selecting, feeding, managing and marketing of beef animals. As part of the beef project, you may show a beef animal. Special guidelines apply to showing livestock at 4-H shows.

New or recycled constructed item—

members can create rope halters, lead ropes, feed bucks, hot boxes for new born livestock, hay feeders, stands for growing, and much more.

Poster on economic impact of beef cattle to South Dakota and nation

Poster on general animal behavior, management, health and nutrition
Notebook or picture story animal promotion and marketing
Poster of genetics and breeding
Display of importance of bio-security
Research careers in the beef industry.

Bicycle

Poster on road safety
Poster on bike maintenance
Notebook or picture story of a bike rodeo you helped with
Poster of why and how to wear a bike helmet
Display of equipment used for bike repair or first aid
Research for a paper or speech on some aspect of bicycling
Special Science Display on bicycles—entries should be mounted on plywood, maisonette, or other sturdy material for display and may consist of either a single or series as a unit
Compare different bike styles

Cat

- Begin learning the needs and care for cats before the family selects a cat for a pet. If you currently have a cat, learn more about its behavior, its nutritional needs, and health care. As part of the cat project, you may show a cat. Special guidelines apply to showing animals at 4-H shows.

Emergency kits—create a care kit for your pet and place all essential items in a sturdy container that you can carry easily.
Poster on 10 or more cat breeds
Learn laws regarding pet care, pet waste, pet vaccinations, etc.
Figure costs to keep a cat
Study pet behavior and make a chart of a pet's reactions to noise, music, wind, etc.

Learn first aid for your pet.

Character Education

- **CHARACTER COUNTS!** is part of the 4-H program in South Dakota. Through CC! you learn about the six pillars of character: trustworthiness, respect, responsibility, fairness, caring, and citizenship as building blocks to good character in all people.

Focus on one pillar and develop a poster or display showing how you can act it out in your life

Trustworthiness: interview a few business owners and find out about the effects of shoplifting on their businesses.

Respect: create a poster showing good sportsmanship ideas.

Responsibility: take photos of people doing their duties in their jobs. Display photos on a poster.

Caring: organize a group of your friends to visit the people in an elder care center.

Fairness: Play a game with younger children and then change the rules. See what happens. Have them help you create a poster telling what the rules should be and why it is important to follow the correct rules.

Citizenship: Create an issue or question that people coming to your achievement days can vote on. (Example: our school should have a 4-day school week or a 5-day school week.) Provide ballots, pencils, and ballot box. Count the votes on the last day of the event and announce the results.

Child and Family Development

- Growing up and growing older. Learn principles of how a human grows and develops as an individual and as a member of a family or

community. Investigate self-care, family, relationships, intergenerational relationships, and differences in individuals and cultures.

Toy, game, puzzle, puppets, art/craft materials, etc. made from new or recycled/throw-away material

Babysitting kit/travel kit/rainy day kit including at least one item made by the exhibitor

Original book, story, poem, song, play, cookbook, audio or video tape and narrative, activity book, or safety manual for children

Original book, story, poem, song, essay, photographic display, audio or video tape, poster, journal, scrapbook, or file about children and/or families

Exhibits in this lot should specify in writing and/or with illustrations, something the 4-Her has learned about children or family growth and development, etc.

Consumer study booklet, poster or video comparing at least six commercial toys, children's books, equipment, furniture or clothing, etc. Include information on age of child, contribution to growth and development, price, safety factors, etc. where applicable. Do not include item in display. Use pictures or photos if needed

Scrapbook, photographs, items, reports, video, etc. on family heritage with description of what was learned about self and family

Collections of articles, speeches, etc. on various points of view of an issue concerning children, parenting, grandparents, families, discipline, TV, feelings, or gender roles with exhibitor's position and why

A creatively developed program and/or item used for or with a person with a special need (gifted, developmentally delayed, physically impaired, etc.)

Teaching plans, lessons, activities, etc. for teaching others and report on results of use

Citizenship

- What does it mean to be a citizen? Learn about the rights and responsibilities of belonging to a family, community, state, nation, and the world. Explore how democracy works and how to participate in the democratic process to bring about change. Youth enrolled in the Citizenship project area may also apply to attend the annual Citizenship Washington Focus trip in Washington, D.C.

The family tree and community—describe the process and any difficulties and surprises that you encountered as you studied and developed your family history. Report on their settlement and life as part of their community. Include at least two other activities, i.e. family memories, family traditions, maps made, etc. and pictures taken to complete selective activities. (You may use the 4-H Citizenship bulletin pages or other sheets printed for family genealogy record)

Knowing/understanding my state—illustrate through words and pictures what you have learned

Identify and describe three examples of the activities you used as a project member and/or youth leader to illustrate and/or teach American democracy

Attend a public meeting, such as city council or county commission

Become informed about a local issue. Collect news articles and opinions about the issue

Make a poster encouraging people to register and to vote.

Explore and list career possibilities

related to government
 Presentation of 4-H international cross-cultural home stay experience
 Educational poster or display showing what citizenship means to the member. Exhibit can include pictures of the individual putting Citizenship into action, or a slogan expressing what Citizenship means to the member. Be creative. Use magazine pictures and titles to make a collage or anything, which explains Citizenship. A story should be attached describing what the member has learned about Citizenship, how the member feels about the project and how this meaning of Citizenship will affect the member in the future.

Clothing and Textiles

- What do I wear today? Clothing is basic to our everyday lives. Learn about appearance, good grooming habits, garment construction, ready-to-wear clothing selection, clothing care, and wardrobe planning.

Learn clothing construction techniques. Enter in annual Fashion Revue contest. Make a poster about types of fibers or fabrics.

Constructed garment such as a blouse, shirt, top, skirt, pants, sweatshirt, jumper, dress, etc.

Non-clothing constructed item (ex: simple home or clothing accessory item such as a pillow, apron, locker caddy, book bag, belt, placemat, puppet, sewing kit, quilt, curtains, etc.)

Non-clothing article using a pattern or your own idea. Examples are: lady bug pincushion, patchwork pillow top, sewing wall hanging, bike bag, tote bag, book bag, back pack, sun visor or stuffed toy

Purchased garment or outfit. Must be accompanied by an 8½" x 11" entry

form that includes: colored photo of member wearing garment, cost of garment, explanation of why garment was purchased, ways it will be used in existing wardrobe, cost comparisons to a constructed garment, wardrobe building, accessorizing or care
 Tailored garment or outfit using quick or custom tailoring

Communications

- Learn to express yourself in a variety of way, from speeches to written communication.
- Teach a communication workshop for young children.
 Design a poster for National 4-H Week or to promote a 4-H event.
 Volunteer to read books onto tape for the blind.
 Visit a local nursing home and deliver your 4-H speech.

Community Service

- Discover your community and find ways to become involved in activities to help make it a better place to live.
- Learn about organizations in your community.
 Organize a community improvement project, such as planting flowers and trees.
 Be a helper at a community event, such as Special Olympics or a fundraiser for charity.
 Collect food, clothing and/or furniture for families who have experienced a fire, flood, or other emergency.

Computer

- Learn about computers, software, and the Internet by using a combination of interactive CD-ROMs and Web-based activities.
- Labeled chart, graph, poster, or three-

dimensional display showing the components of a computer and how they work.

Display and/or written summary (1 to 3 pages) of consumer choices involved when buying a computer

Display and/or written summary (1 to 3 pages) about one of the following: history of computers, changes in society resulting from the invention of computers, the ethics (copyright laws, privacy) involved in using computers or another topic

Display and/or written summary (1 to 3 pages) about computer technology

Display and/or written summary (1 to 3 pages) about computer languages

Software developed by the 4-H member—include statement of objectives, list, run, and discussion of program. Programs must be original, enhanced or adapted by the member from an existing program

A display showing how exhibitor has used a computer in an application related to 4-H. Include a statement of purpose and a written plan for use and example of use

Display and/or written summary (1 to 3 pages) including an outline or lesson plan for teaching other members about computers or a plan to use the computer as a teaching tool for another 4-H project. Include statement of objectives and plan for teaching

Other—may be a display and/or written summary or other presentation showing work done in the 4-H computer project

Display and/or written summary (1-3 pages) about a computer operation besides programming

water, clean air, vegetation, and animals. Learn how to manage and use them wisely. Understand the natural world and our dependence on natural resources.

Choose one living thing in the forest, field or stream. Develop display to describe ecosystem

Display on environmental pollution—describe the pollution, causes, effects on people and other living things, methods to correct the situation

Display showing safety practices and/or study equipment to use when taking a hike in the forest, through field or stream

Identify, mount and label a plant book of 10 different South Dakota plants. Select a theme such as trees, shrubs, weeds, wildlife food or shelter, human food, survival food for humans, poisonous plants, wild flowers, aquatic plants, plants for beauty, food, medicine and/or flavorings, etc.

Display showing erosion control practices like minimum tillage, terraces, contour strips, grassed waterways, field windbreaks, water control structures, etc.

Display on career themes such as forestry, entomology, agriculture, wildlife

Report or display on an animal's tracks, home habits and foods

Display or inventory of plants, animals, birds, insects or other living things in your backyard or defined natural community

Display or report on soil, showing features of soils such as color, structure, texture, differences in forest and field soils

Identify, mount, and label 10 insects of South Dakota. Use a theme like: insects of the forest, insects of the field, aquatic insects, insects beneficial to people; insects harmful to people

Conservation & Stewardship

- Our planet is rich in resources—

Consumer Education

- What kinds of things do you buy? What is your budget? How do you decide what to spend your money on? Learn to be a good consumer by defining the problem, gathering information, evaluating alternatives, and making decisions. Find out how to make better decisions about wise use of resources such as your time, money, and talents.

A file, folder, notebook, etc. for saving labels and/or instruction booklet with example

Label comparison showing different types of labels and information given

Consumer comparison booklet or poster comparing at least four models of the same item showing features, costs, etc. with best items selected and reasons why. Use drawings or photos to illustrate

Analysis of newspaper, magazine or television advertising explaining information given and emotional appeal

Example of guarantee/warranty and explanation of what it means

Example of a consumer complaint/how settled

Develop a budget, a spending plan, and a savings plan.

Cultural Education, International Study & Exchange Programs

- Discover how understanding individual and cultural differences leads to greater respect for other people and a greater appreciation of one's own heritage.

Make a family tree to learn about your own heritage.

Find out what people wear, what they

eat, and what games they play in other cultures or countries.

Go on an exchange trip to another state.

Host an international student.

Study a county, culture or geographic area in present or through time.

Create a journal or display from experiences as a host family or as an exchange delegate.

Dairy Cattle

- Learn about the dairy industry through active participation in community events. You may show a dairy calf, heifer, or cow as part of the project. Special guidelines apply to showing livestock at 4-H show.

Poster on economic impact of dairy cattle to South Dakota and nation

Poster on general animal behavior, management, health and nutrition

Notebook or picture story animal promotion and marketing

Poster of genetics and breeding

Learn about dairy projects and how they are produced, packaged, and marketed.

Learn how to care for dairy animals and keep them healthy.

Attend a dairy show and take part in a dairy judging school.

Dogs, Dog Obedience & Dog Agility

- Man or women's best friend? People love their dogs. Learn to care for and train your dog. Gain proficiency in some phase of dog work, such as training, obedience, or agility. You may show dogs in showmanship, obedience, and agility as part of the dog project. Special guidelines apply for showing dogs at 4-H shows.

Make a chart of the seven breed groups: sporting, hound, working, terrier, toy, non-sporting, and herding.

Become familiar with the roles of service dogs.

Make a first aid kit for a dog. Tell why and how each item is used.

Share diet and nutrition information for raising a healthy dog.

Interview your veterinarian about a microchip to identify your dog.

Make a poster on diseases your dog can get. Tell about its discovery, effects, treatments, prognosis and outcomes.

Design a toy for your dog; tell about your decisions related to safety and cleanliness.

Drama & Theatre Arts

- Experience how to create form and meaning with voice, gestures, and body movement. Explore role-playing, mime, staged presentations, and rhythmic and harmonized body movement of spontaneous or controlled nature, both individually and in a group.

Learn about different types of performances—plays, recitals, concerts, musicals.

Make puppets and give a puppet show.

Try improvisation.

Learn about clowning.

Write a play or skit and perform it for an audience, such as a preschool or elder care home.

Learn how people use body language to communicate.

Economic, Business & Marketing

- Big or small—businesses create jobs and provide products and services. Learn how competition, supply and demand, and finance are important concepts in business, and how personal, social, and ethical decisions are also important. Study currency and foreign trade.

Describe a monopoly.

Select a commodity or stock and graph the pricing over a period or time, e.g., two months.

Examine businesses in your community. Determine which products or services are not available.

Compare warranties for similar products at different stores.

Explore how advertised products reach target audiences.

Electricity

- Shocking? Discover how electricity works and how it saves time and labor. Learn to use this energy source safely and wisely.

Science exhibit explaining some phase of electricity. Examples are: how electric motors work; how electricity is generated; principles of a transistor or vacuum tube; safe use of electricity, such as reason for grounding appliances; magnetism and its relationship to electricity; magnets

Display or written report on how electricity is used for family living, communicating, producing goods and services, etc.

Display or written report on electronics

Build a flashlight, troublelight, circuit display, etc.

Measure electricity usage of appliances.

Embryology

- Study the development of an egg through hatching. Learn about embryo transfer in livestock.

Create a display about the stages of development of an embryo.

Explore ways embryology is benefiting agriculture today.

Make a chart of the gestation lengths for each species of livestock.

Build and operate an incubator.

Watch an embryo develop.

Energy for Farm, Home & Transportation

- Power up! Learn about the various types of energy used today for home heating/cooling, farm machines and farming and various types of transportation. Explore new sources of energy for our homes, cars, and factories.

Identify types of energy consumed on the farm or in your home.

Find out how types of energy are produced, e.g., wind energy.

Research energy sources for new products such as hybrid cars.

Learn about the cost of heating an improperly insulated home compared to a properly insulated one.

Talk to a gas or electric company representative about methods to reduce energy consumption on the farm/in your home.

Compare energy ratings/consumption on home appliances.

Engineering

- Learn the background on how to successfully build a project. It starts from drawing, surveying and ends with building. Engineering engages youth with hands-on inquiry-based learning.

Create a display to show the different types of engineering areas.

Research bridge types.

Choose an area of engineering and design something that addresses a specific purpose or problem wish to solve.

Create a popsicle bridge and explain the importance of a bridge.

Entomology

- Bzzz! Learn about insects found in the soil, on plants, in homes, on pets, and other secret places! You may

study of all types of insects—both beneficial and harmful.

Create a poster showing different crop pests and their natural predators.

Make an insect display with scientific and common names.

Explore the way that insects communicate.

Learn how to classify insects.

Create a butterfly garden in your

backyard and record species that visit.

Interview a bee producer and learn why bees are important to plants and the environment.

Make a poster showing the different invasive species in your area, how they affect the ecosystem, and how they are spread.

Entrepreneurship

- Be an entrepreneur! Learn to start a business and develop a complete business plan. Develop a way to market your ideas.

Interview an entrepreneur or small business owner in your community.

Take a tour of a local business.

Learn about different types of businesses.

Learn the meaning of line of credit, cash flow, investment, and public offering.

Work with a group to create a product and develop a business plan to sell it.

Exploring the Treasurers of 4-H Curriculum

- If you are a young or first-time 4-H member, you will have the opportunity to discover what your interests are. Explore arts and crafts, clothing, electricity, crops, conservation, food, entomology, home environment, child development, and much more.

Sample activities in several different 4-H project areas.

Plan a nutritious meal.

- Make a puzzle or game.
- Create a collage or paint a picture.
- Be responsible for your pet.

First Aid

- Health is physical, but it is also social, emotional, intellectual, and occupational. Learn how you change as you grow and how to meet the challenges of every state of development.
- Learn self-help health skills, such as stress management.
- Learn how to report an emergency.
- Make a first aid kit for your home, vehicle, tractor, or boat.
- Take a course to learn basic first aid techniques.
- Make a list of emergency numbers to place by your phone.
- Volunteer to help with a health screening or immunization program sponsored by an agency in your community.
- Make a display about the effects of using tobacco.

Fitness & Sports

- Home run! When you stay physically active, you win! Whether you choose physical activity for one, such as rollerblading, or team activities, such as softball, there are many ways to be active. Learn skills, rules, and care of equipment to prepare for a lifetime of good physical health.
- Learn the rules and scoring for a sport such as tennis, golf, softball, or bowling.
- Learn to select proper exercise equipment.
- Organize a game of kick ball or softball for a club meeting.
- Teach soccer, tennis, or badminton to a group of younger club members or an afterschool group.
- Participate in team or individual sports.

Keep an exercise log or diary.

Food Preservation

- Good health depends on eating a variety of different foods. People on the go often don't have time to prepare fresh foods. During the winter months, fresh foods are not always available. Learn how to preserve fresh foods by canning, freezing, drying, or pickling.
- Make a poster on the history of food preservation.
- Experiment and display foods that dry the best.
- Learn the length of time and temperature to dry correctly and how to detect spoilage.
- Learn how to use a pressure cooker or dehydrator.
- Display a food science experiment.
- Exhibit preserved food, such as dried meat, jams/jellies, canned pickles, etc.

Food Safety

- Proper preparation of food is important in avoiding illness and maintaining good health. Learn how to keep food safe by selecting fresh food, storing it at the proper temperature, and maintaining high standards of cleanliness in all stages of preparation.
- Make a poster about proper hand washing techniques.
- Buy a meat thermometer and check the temperature of meat dishes before serving.
- Give demonstration to your group about safe food handling practices for a concession stand.
- Participate in a Special Foods contest.

Foods & Nutrition

- Food, fun, and flavor! Good nutrition doesn't have to be dull.

- Learn to experiment with different foods that are both good and good for you. Increase your knowledge of good health through MyPlate. Learn to choose nutritious foods and use proper preparation techniques.
- Any food item
- One nutritious vegetable or fruit dish.
Include 8-1/2" x 11" poster showing nutritional value, recipe, and photo of the food
- Nutritious snack food, include 8-1/2" x 11" poster showing nutritional value, recipe and photo of food
- Study of nutrients needed for yourself or someone else using the dietary guidelines and Food Guide Pyramid
- Make a fitness plan for yourself or someone else and show how it relates to the food you eat and to your health
- Make a plan for yourself or someone else for foods that should be eaten for a day and explain how the plan meets nutritional and energy needs (ex: an athlete on a volleyball team, a teen who doesn't have a lot of time)
- Study of how physical fitness and/or food choices are related to disease (cancer, heart disease, osteoporosis, diabetes, etc.)
- Study of three or more labels from similar food items comparing important nutrient content like fat, fiber and sugar
- Explain how five or more nutritious snack choices fit into a healthy diet
- Exhibit showing food and/or kitchen safety
- Careers in nutrition and food industry
- Food/Nutrition experiment
- Compare food products for nutrition, cost and convenience.
Food Education Display – develop an idea of your own or choose one of the following ideas:
- Study of basic ingredients in quick and/or yeast breads and their purpose
- Comparison of different types of flours (hard/soft, wheat, rye, oats, corn etc.)
- Exhibit of the similarities, differences, and/or significance of bread products in various cultures
- Comparison and/or study of bread, cereal or pasta products
- Comparison appearances, flavor, texture, nutrition, cost, and/or time savings in purchased and homemade products
- Study of experiments in adapting recipes to special dietary needs
- Educational exhibit on sweet dough, specialty breads or pastas
- Exhibit on storage and preservation of bread products
- Make changes in bread and cereal recipes or dairy recipes so they will be a more healthy choice
- Compare the nutrient content of different forms or kinds of dairy products and how it is related to health (ex: low fat and “regular” cheese)
- Modification of a recipe containing dairy products to reduce fat and/or sodium
Food Education Display/Science Experiment - choose one of the following ideas or develop your own:
- Creative exhibit showing daily calcium requirements for a person your age. Include several different combinations of food to meet the daily requirements
- Exhibit showing amount of fat per serving in six or more different dairy products
- Comparison of nutrition and calories of different forms of milk
- Study of six or more different kinds of cheeses. Include nutrition and different uses for each
- Creative exhibit showing importance of vitamins and minerals that dairy products supply a person your age. Include information on food sources of these nutrients, daily

requirements and why they are needed

Exhibit comparing nutritive value of real dairy products with non-dairy substitutes

Dairy food careers (other than owning or operating a dairy farm)

Food Education/Science Experiment Display. Choose one of the following ideas or develop your own:

Identifying retail meat cuts, differences in cost and nutritional factors

Comparing meat labels

Storage and preservation of meat

Nutritional values of meat

Menus using meat products

Food Education Display/Science Experiment - choose one of the following ideas or use your own:

Buying microwave equipment and understanding mechanics of appliance

Microwave safety

Menu and diet planning using microwave cooking

Food/Nutrition experiment.

Study of how microwave cooking affects food (including nutrition, appearance, taste, etc.)

Forestry

- Identify one tree or a whole forest of trees. Gain knowledge of how trees grow, how they reproduce, and why they are important to the environment and to our everyday lives.

Tree identification—collect six leaves or needles with twigs and identify them with their common name. Leaves (or needles) with twigs should be mounted on stiff backing such as cardboard or tag board. Common name should be printed near the identified leaf/needle

Forest products—display photographs of

six products/uses from the forest.

Photographs should be mounted on stiff backing such as cardboard or tag board. Include the name of the product/use to identify the photograph

My favorite tree—prepare a report with drawings about your favorite tree.

Report should include name of tree, drawings or pictures of tree, facts and uses of the tree, and other appropriate information

Forestry and You—display showing layers of the forest; renewable versus non-renewable resources; forestry careers

Name that Tree—display showing leaf and twig identification; taxonomic keys; tree road maps

A Day in the Life of a Tree—display showing tree growth; annual ring cross-sections; make a seed collection

Change in the Forest—display showing forest succession; wildlife specialists versus generalists

Finding Your Way—display showing compass routes; maps you make

Measuring the Forest—displays showing tree and forest measurements

Displays showing fire's affect on the forest

Silviculture—display showing how trees grow; forest types; harvesting methods

Insects and Diseases of the Forest—display showing entomology of the forest; pathology of the forest

Wood Products—display showing forest products, including maple syrup production; wood products; Christmas trees

Multiple Resources—display showing other resources of the forest, including recreation, wildlife and watershed

Specialized Woodlands—display showing specialized woodland management, including shelterbelts/windbreaks and urban forestry

History of forest industry

Geology & Minerals

- Earth rocks! Learn about the importance of rocks and minerals in our daily lives. Discover the history of South Dakota and other locations through rocks and fossils.

12 rocks, minerals or fossils from within the state of South Dakota—member should have a knowledge of how specimens are identified as to rock or fossil type. Specimens should be approximately 2" x 2" or smaller

2 different minerals of each of the following rocks: sedimentary, igneous, and metaphoric. Member must have a knowledge of how specimens are identified as to rock or fossil type

5 different minerals of each of the following rocks: sedimentary, igneous, and metaphoric. Member must have a knowledge of how specimens are identified as to rock or fossil type

At least five different polished rock types used to make decorative items such as paperweights and jewelry. Member must be able to identify the types of rocks used to make the jewelry and have an unpolished specimen of each rock type accompany the polished version. Include information on techniques and procedures used. Display case should have a locked glass top

Science exhibit—an exhibit to show the science hows and whys dealing with the principles of geology and natural earth sciences. The exhibit should not exceed 12" deep x 18" wide x 22" high

10 labeled artifacts made from rocks or minerals of any one kind or combination.

Demonstrate how a volcano works or how glaciers shaped the landscape

Geospatial

- Where in the world are you? How

long would it take emergency services to reach your house? Global Positional Systems (GPS) use satellites orbiting the earth to locate precise positions anytime, anywhere. Learn how to use GPS to navigate the world and map the things in it.

Exhibits may include a poster, display or booklet. 4-Hers may additionally share their project work through a computer based presentation. Exhibitors will need to bring the appropriate software and presentation data.

Make a geocache—a written description of the process of determining where to locate it and placing it in its location.

Make a map using GIS skills and software that youth can make a map using GPS waypoints.

NOTE: Geographic Information System and Global Positioning System (GIS/GPS) programs allow 4-H members to explore science, engineering and technology and combine to form the content for the Geospatial project area. Appropriate work in this area can include investigation into the history of GIS and/or GPS, current uses, equipment and software, and more. Development of GIS maps that incorporate waypoints and trails created through GPS are encouraged.

Goats

- Learn about the dairy and meat goat industry by studying breeds, health care, grooming, production, reproduction management, marketing and careers!

New or recycled constructed item—members can create rope halters, lead ropes, feed bucks, hot boxes for new born livestock, hay feeders, stands for growing, and much more.

Design a business plan to market goat meat directly to retailers, restaurants,

or private customers.

Research goat by-products.

Tour a goat operation and create a poster board about what you learned.

Graphic Design

- Graphic design is a creative process that utilizes art and computer technology to communicate ideas. It begins with a message that is transformed into visual communication and transcends words. Learn how the graphic designer uses color, type, symbols, and photography to create and manage the production of images designed to inform and persuade a specific audience.

Do a study of color, lettering styles, and/or format spacing.

Give a talk on how to achieve a special effect seen on many print pieces today.

Construct a poster board using drawing program such as Free Hand or Photoshop, Paint, and/or Illustrator.

Design a model, portraiture, and/or still life using a computer generated graphics program.

Create a series of four to six greeting cards in Word, WordPerfect, Printshop or Publisher.

Design a two-sided brochure promoting an event, program or idea using any design program.

Create a poster to educate, promote or give directions, using any design program.

Design an ad suitable for print media (newspaper, magazine or newsletter).

Health

- From treating bug bites to finding safe playgrounds to starting a Kids Walk to School program—the 4-H Health project helps you explore health and wellness in your personal

life as well as your home, club, community, country, and world.

Create homemade health and beauty products such as: homemade makeup remover, bath salts, soap, lotions, laundry detergents, etc.

Health scrapbook, such as story using pictures; collection of magazine articles/tips on health; ads promoting healthy lifestyles; ads promoting medicines or cures; ads showing unhealthy lifestyles and explanation of methods to change the behavior to make it healthy; pictures/magazine ads/articles stating the importance of exercise; pictures of unsafe conditions you have taken; report summarizing articles/ads you have seen

Medicines, such as careers in medicine; history of medicine—the progression through the years; how a medicine (or practice/technique) came to be useful; written presentation about medical history; diseases—history and prevention

Health Poster

Health Activity—story by pictures, collection of magazine tips and articles on health in a scrapbook

Exhibit that explores a specific health issue—treatments, medication, risks, prognosis, etc.

Organize a health-related event

Hobbies & Collections

- How do you spend your spare time? Do you have a hobby or collection? Share your special interest with others by exhibiting your collection of examples of things you have created.

Pick a hobby or start a collection that interests you.

Create a display of your collection (cars, cards, shells, tractors, etc.)

Learn to assess the value of your collection as investment for the future.

Home Environment

- Our homes and apartments are our private spaces but also places we share with family and friends. Discover how to make living spaces more comfortable, organized and inviting. Learn about color, space planning, fabrics and furniture.
- Constructed or purchased storage unit or item.
- An item with a link to the past and include report the family ties or history of the item, its past use and its present use in home.
- Comparison of brands of one type of purchased home care product or comparison of purchased with homemade home care product of one type.
- Reupholstered furniture.
- Illustrate an aspect of quilt-making or finished quilts.
- Create a design board for a room.
- Make a decorative or function item intended for use outdoors.
- Create a centerpiece.

Horse & Pony

- Horses provide opportunities for recreation, competition or work. Learn about animal care, safety, good horsemanship skills, and training. You may show a horse as part of the project. Special guidelines apply to showing horses at 4-H shows.
- Learn about horse parts and breeds.
- Learn how to care for a horse and plan a horse health program.
- Make a list of essential horse tack.
- Figure costs to raise and keep a horse.
- Learn how to age a horse by its teeth.
- Create a horse care and grooming notebook.
- Learn about careers with horses.

Horticulture, Gardening & Landscaping

- How does your garden grow? Soil, temperature, moisture, and nutrients are common elements in the successful growing of plants. Explore how these elements affect the growth of vegetables, flowers, plants and shrubs.
- Display/binder/poster on watering techniques
- Potting/repotting/transplanting
- Checking and controlling insects
- Complete cultivation requirements of one of the 3 plants the member grew. Include the common and botanic names
- Starting plants from seeds
- Forcing paper white narcissus bulbs
- Dish garden
- Terrarium
- Landscape plan—the poster/binder/display should be drawn to scale with plants and major areas of yard labeled. Changes and future plans should be shown. Photographs showing before and after views are desirable. Posters showing physiology of a tree are not acceptable for state fair.
- A plan of your entire home lawn drawn to scale. Label areas and describe any changes made and/or future plans
- Display of weeds and/or insects common to the lawn or yard effects and treatment recommendation
- Display of lawn grass seeds, diseases and how to control them, experimental display landscape accessories, soil testing, effects of fertilizer rates, ratio, and weed control
- Lawn care business

Leadership Skills Development

- Develop your leadership potential through understanding yourself. Improve your communication and

decision-making skills. Learn about managing and working in groups. Leadership focuses both on personal development and being of service to others.

Document your leadership activities on a poster or in a display.

Join local 4-H Junior Leaders group.

Apply to the state 4-H Teen Leadership Council.

Plan and carry out a productive meeting.

Become a member of a committee or board in your community.

Leisure Education & Recreation

- Leisure is the freedom to choose what you want to do. Leisure education teaches you the value of leisure time and how to use it to the fullest. Enhance your leadership skills by leading or demonstrating a type of recreation in a group setting.

Plan a hike including proper equipment, food, and water.

Make a list of activities suitable for a specific age group, such as 9-11 year olds.

Design a game or puzzle that can be played by two or more people.

Music/Dance

- Create form and meaning through rhythm, meter, and harmonics with voice and instruments. Discover how music develops physical skills, mental abilities, creative capacities, and social skills. Participate by listening, performing, composing, teaching, or making musical instruments, either individually or in a group.

Create display of history of variety of music genres.

Research different composers.

Write your own music.

Learn to play an instrument.

Choreograph a dance.

Record a performance.

Make a poster identifying different types of musical instruments.

Outdoor Education/Recreation

- Nature is calling you. Outdoor education provides youth with education experiences related to food, shelter, safety, navigation and camp management. Activities can progress from day hikes to overnight camping trips and finally to extended backpacking expeditions.

Plan a hike including proper equipment, food, and water.

Create a poster of the different nature trails in South Dakota.

Design a poster of the different wildlife in South Dakota.

Pets—Small Animals

- Learn how to care for gerbils, hamsters, birds (canaries and parakeets), and guinea pigs. Begin by learning about the needs and care of a pet before the family selects a pet. If you currently have a pet, learn more about its behavior, its nutritional needs, and health care.

Educational display, poster or photographs of member caring for and/or interacting with their pet.

Selection, appropriateness, cost, etc. of a pet.

Study pet behavior and make a chart of a pet's reactions to noise, music, wind, etc.

Learn first aid for your pet.

Photography/Videography

- Photography is part art, part science, and part communication. Learn to capture events, ideas, and situations as a record for others to enjoy or

study.

- Learn common photographic mistakes
- Create a poster of comparisons of camera, flashes, etc.
- Study different photo careers
- Make a poster of camera parts and/or care.
- Exhibit an original photo.
- Create a video.

Plant Science, Crops & Weeds

- Both animals and humans rely on plants for food. Explore how this need is met. Learn how plant and soil characteristics, crossbreeding, fertilization, and genetics improve yields. Learn about sampling, testing, and judging plant varieties.
- Germinate 50 seeds of corn. Arrange seeds according to strong and weak sprouts. Explain how you made the germination test.
- Bundle of 5 stalks of corn cut at ground line
- Comparison of shelled corn samples (different varieties, different strengths/weaknesses, etc.)
- Comparison of stalk samples (different varieties, etc.)
- 10 ears of corn
- An experiment conducted using corn
- A recipe you have found and used with corn as the base
- Examples of pesticide or herbicide use on corn plants
- A report about corn (how technology has affected progress, how the markets work, impacts of herbicides/pesticides, uses of corn, etc.)
- Examples of how biotechnology impacts the growth and final crop; either in a report or bring examples
- A report or display about the marketing process (follow a product from harvest to market and possibly into a consumer's hands)
- Report on ethanol or the ethanol industry

Poster/display/binder on one of the following:

- Plant reproduction
 - Soils
 - Plant growth factors
 - Plant characteristics
 - Growing and using plants
 - Plant growth and food production
- Ten different leaf or whole plant specimens of farm crops or weeds

Poultry & Eggs

- Learn about production and marketing of poultry and/or eggs. You may show birds as part of your poultry project.
- Poster on general animal behavior, management, health and nutrition
- Notebook or picture story animal promotion and marketing
- Poster of genetics and breeding
- Display of importance of bio-security
- Research careers in the poultry industry.
- Discover how an egg is formed. Set up a brooder unit with brooder, water, feed, litter, etc.

Rabbits/Cavies

- Raising rabbits requires very little space and small investment. Learn to recognize quality animals according to the breed's standards. You may show rabbits as part of the project.
- Poster on general animal behavior, management, health and nutrition
- Notebook or picture story animal promotion and marketing
- Poster of genetics and breeding
- Display of importance of bio-security
- Research careers in the rabbit industry.
- Create an emergency pet supply kit.
- Build a rabbit hutch.

Range Science & Pasture Management

- Rangeland and ecosystems have evolved over time. People and animals can live in harmony through proper range management. Good management practices help support livestock businesses. Learn about plants and environmental conditions on the range.

Understand plant vigor and the effects of grazing on plants.

Identify range sites and calculate range conditions.

Understand stocking rates.

Make a notebook or display classifying different range plants.

Create a collection of specimens.

Robotics

- Through hands-on activities, the 4-H robotics projects teach basic concepts related to robotics subsystems such as structure, power, sensors, control and programming that introduces science, math and engineering.

Create a poster on the history of LEGOs.

Design a challenge course

Rodeo

- Modern day rodeo is both an admired athletic event and a popular form of entertainment. The professional rodeo contestants of today are athletes, who have superior horsemanship skills, physical conditioning, and knowledge of their sport.

Describe the role of physical fitness in rodeo.

Display photographs and explain the various types of rodeo events.

Create a poster of the different types of safety gear.

Safety

- Keep yourself and others around you

safe! Involve the entire family in being safety-conscious. Develop the ability to recognize hazards and learn how to correct them. Explore safety issues in these areas: recreation, farm machinery, and traffic.

Safety Poster

Make a fire exit plan for your family.

Do a safety inspection of your house, garage or other buildings.

Winter Survival Kit—good kit might include: two 1-gallon cans with plastic coverings, matches, candles, flashlight, extra warm clothing, supply of high calorie non-perishable food, compass, pocket knife, quarter for call. Include a list of other items too big for the kit, such as: sleeping bag, jumper cables, tow chain, etc. Include items you think could be useful

Safety Activity—story by pictures, collection of magazine tips, and articles on safety in a scrapbook

First Aid Kit for home—should have a strong container, labeled properly, latched securely, able to identify items and kit should contain items that were suggested

First Aid Kit for car—should contain a dust proof container, labeled properly, latched securely, able to identify items and kit should contain items suggested

First Aid Kit should include: tube of petroleum jelly, absorbent cotton, dressings, fever thermometer, gauze bandages of different sizes, adhesive tape, sterile gauze squares, scissors, tweezers, aspirin, First Aid Book, elastic bandages, minor burns and cuts treatment

Unsafe item restored to safe condition (a written explanation of the problem and how it was solved is necessary)

Occupational Safety (farm, kitchen, construction, business, etc.), such as report containing hazards in occupation and methods to make

conditions safe; interviews with employees who work in unsafe conditions and how that affects their job; interviews with employees who work in safe conditions and how that affects their job; pictures of unsafe conditions found in a workplace; report or story telling of experiences with unsafe equipment; report or story telling of experiences learning about safety (day camp or training, etc.)

Self-defense, such as kit of items used for personal protection; booklet or report about techniques used in self-defense

Service Learning

- Service-learning is a strategy that integrates community needs, intentional learning objectives, and structured opportunities for reflection. Projects take community service or volunteer projects to the next level by emphasizing both service and learning to create a more meaningful experience for youth. Investigate needs, publicize, collect, and process items needed for disaster relief. Help an elderly neighbor—mow, pull weeds, shovel snow, paint. Distribute voter registration information. Tutor younger kids to improve reading and writing skills. Conduct a day camp for younger kids in poor neighbors. Demonstrate home and yard composting throughout the community. Help cook and serve at center for homeless. Deliver Meals on Wheels. Set up a book exchange so kids can trade in ones they have read for ones they have not.

Sheep & Wool

- Learn about sheep production,

management, and marketing. You may show sheep as part of the project.

- New or recycled constructed item—members can create rope halters, lead ropes, feed bucks, hot boxes for new born livestock, hay feeders, stands for growing, and much more.
- Poster on economic impact of sheep to South Dakota and nation
- Poster on general animal behavior, management, health and nutrition
- Notebook or picture story animal promotion and marketing
- Poster of genetics and breeding
- Display of importance of bio-security
- Research careers in the sheep industry.

Shooting Sports

- Learn about safety, proper care and handling of equipment, and marksmanship in the disciplines of BB gun, archery, air rifle, air pistol, and shot gun.
- Safety—safety techniques applied to shooting activities. Examples are: range commands and range safety, eye and ear protection, cleaning a firearm, dressing for safety, first aid or survival skills
- Archery shooting skills—examples: basic safety rules, parts and functions of each piece of equipment, care and maintenance, accessories or positions
- Shotgun shooting skills—examples: basic safety rules, basic parts and functions of each piece of equipment, care and maintenance, shooting accessories or positions
- Air pistol shooting skills—examples: basic safety rules, parts and functions of each piece of equipment, care and maintenance, accessories or positions
- Rifle shooting skills—examples: basic safety rules, parts and functions of each piece of equipment, care and maintenance, accessories or positions

- Muzzle loading shooting skills—
examples: basic safety rules, parts and functions of each piece of equipment, care and maintenance, accessories or positions
- Youth leadership—show your work as a youth leader in shooting sports club
- History and nomenclature of trapping, hunting, firearms, and non-game wildlife
- Sportsmanship—ethical behavior and responsibility, effects of values to wildlife of modern game laws and regulations
- Report about shooting safety
- History of shooting—progression of guns and uses
- Story about shooting sports (first hunting/shooting experience, etc.)—
may use pictures to support the story
- Unsafe items restored to safe condition—
written explanation of problem and how solved
- Booklet of articles/tips on shooting safety
- Poster of your choice (i.e. tips on safety, parts of a gun, etc.)

Soil & Soil Conservation

- What is the soil like where you live? Some soils are sandy, others are clay-like, and others are just good black dirt. Find out what will grow in each these soil types, how to test soil, and how to improve soils.
- Make a poster explaining how grasses need soil and water to grow.
- Create a water erosion in a box.
- Write a conservation plan—exhibit base map, overlays, tables, and other information.
- Made a model of a watershed representing plants, soils, water, at least 3 conservation practices, and other structures.
- Create a poster about how do conservation practices work.

Swine

- Learn to purchase, care for, feed, manage, and market swine. You may show swine as part of the project.
- New or recycled constructed item—
members can create feed bucks, hot boxes for new born livestock, hay feeders, stands for growing, and much more.
- Poster on economic impact of swine to South Dakota and nation
- Poster on general animal behavior, management, health and nutrition
- Notebook or picture story animal promotion and marketing
- Poster of genetics and breeding
- Display of importance of bio-security
- Research careers in the swine industry.

Veterinary Science

- Discover how to better understand animals. Whether you live in a rural or urban area, knowledge of animal diseases and health care is very valuable. Learn about basic animal health, the relationship between the animal and its environment, and the importance of animal health to humans.
- Exhibit might be an exhibit explaining an animal body function, such as the pulse, body temperature, respiration rate of different animals, different types of body cells, etc.
- Exhibit could be a cycle of an animal disease
- Exhibit explaining a type of disease infestation on the body or type of immunity, etc.
- Describe the challenges and benefits seen for the future of the livestock industry
- Impacts on local water systems, drinking water, soil, etc. from feedlots without restrictions
- Differences between manure application devices
- Impacts of the livestock industry on local

economies

Explain the local economy based on the local livestock industry

How the livestock industry impacts the environment

Effects of pesticides on livestock—from feeds, water, etc.

Describe the process needed to complete a manure management plan and benefits to doing so

Visual Arts

- Explore art and design experiences. Learn to apply the elements and principles of art to various media, such as pencil, clay, fiber, glass, leather, metal, paper, plastic, textiles, and wood. Older youth can enhance their experience by further developing their skills, by providing leadership to younger members, or by making connections to careers in the arts.

Learn about the elements and art principles of design.

Create 2-dimensional and 3-dimensional art work.

Experiment with different media such as clay, paper, wood, etc.

Learn about connecting art to careers, such as communication, technology, culture, science, and exhibition.

Study an artist and his/her style or technique. Experiment with that technique or style.

An art object made from a pattern or kit that teaches and develops skills for creative activity

Water & Water Conservation

- Did you ever try to get along without water for a day, or even for an hour? Water is essential to life. Learn about sources of water, safe water and water conservation.

Exhibit to show one or more of the unique physical properties of water

Display to show the hydrologic or water cycle

Display showing the quantities and uses made of water by families, municipalities, industries, animals, and plants

Display on water quality or management—pollution, conservation, water quality standards.

Welding Science

- Develop welding skills for use on the farm/ranch or in preparation for a career in welding. May be Acetylene or ARC welding.

Articles made of metal

Learn basics of operation, application, and adjustment of welding equipment.

Discover the different kinds of welding, how they work and how they are different from each other.

Wildlife & Fisheries

- What is a habitat? Where do animals and fish live and why? Learn about different types of wildlife or fish and their habitats. Explore management practices—both to preserve the species and to allow hunting/fishing. Observe and identify birds, mammals, fish, reptiles, and amphibians in their many different environments.

Wildlife biology/wildlife management—basic concepts of wild life management. Examples are waterfowl wingboards, birdhouse trails, game animal habitat requirements, history of game management, etc.

Game identification—a display illustrating key field identification features of a group of game animals; distinguishing various species of puddle ducks, diving ducks, big game, etc.; differences among five look-alike species of upland game birds, etc.

Taxidermy and associated activities

Taxidermy and associated activities
 Learn wildlife management terms
 Make a nature diorama.
 Take plaster casts of animal tracks.
 Learn about animals' homes.
 Create fishing tackle.
 Learn how to be a good steward of aquatic resources.

Wood Science

- Build, remodel, or repair wooden objects, furniture, and home accessories. Learn to identify the different types of wood. Develop woodworking skills and finishing techniques.

Article made of wood (cutting board, bread board, tie rack, bookends, foot stool, shop stool, bird house, small tool chest, simple furniture, lawn chair, workbench, tool box, gun rack, or furniture)

Wooden article—repaired, finished or refinished

Science exhibit—an exhibit on properties, uses or processing of wood

Purchased "unfinished" article finished

Workforce Preparation

- What's in your future? Explore the job and career opportunities and learn about the value of education and job preparation. Identify your personal interests, skills, and abilities through learning about the world of work, education, and job training.

Understand and demonstrate how personal values, goals, skills, and available resources affect career choices.

Learn practical skills necessary for employment.

Develop a business plan.

Explore various career opportunities available in today's workforce.

Writing & Public Speaking

- Speaking, writing, media, poetry, and prose communication inform, persuade, entertain, and provide conservation. Learn to select the type of communication that best conveys a message. Discover effective ways to deliver ideas.

Learn about organizing information to be presented.

Prepare a pleasing personal appearance and manner before an audience.

Learn about career, job, and leisure opportunities in the communication field.

Put together a Power Point presentation.

