

GENERAL 4-H PROJECTS

Please note: In General (non-livestock) projects, you may bring up to 3 items per class (except Scrapbooking which is limited to 1). Example of a class is: Division: Aerospace, **Class: Grade 6-8.** Example: 4-H'er just completed 8th grade and is bringing 3 Aerospace projects. Enter **Department: Non-livestock, Division: Aerospace, Class: Grade 6-8** 3 times in your FairEntry.com registration record.

Your school grade is the highest grade you have **completed** and determines the registration class.

✿ 4-H ADVENTURES

This area is designed for youth who want to exhibit work learned through their participation in a 4-H program such as **After School** or **Home School**. However, we don't want you to feel limited to 3 projects so invite you to enter in any of the categories in this Premium List. Please call Tammy, Troy, Leah or Ashley at 218-998-8760 if you need help deciding how and where to enter your project(s).

✿ AEROSPACE

Aerospace - Grades 9+
Aerospace - Grades 6-8
Aerospace - Grades 3-5

Requirements:

- Flyable models should be ready for flight (do not include fuel); recovery system should be in place and operative.
- Members should be familiar with safety codes in 4-H curriculum.

Exhibit Suggestions:

- Flyable models built from kit or your own design.
- Non-flyable models built from kit or your own design.
- Display of other equipment needed for aerospace project.
- A rocket launch.

✿ BICYCLE

Bicycle - Grades 9+
Bicycle - Grades 6-8
Bicycle - Grades 3-5

Exhibit Suggestions:

- Display showing types of bikes, parts of a bike, maintenance, traffic rules, bicycling hazards, how to wear a helmet, equipment used to teach others about bike repair or first aid, etc.
- Notebook or picture story of a bike rodeo or other bike event you helped with, or research on some other aspect of bicycling that was presented to a class or service club.

✿ CAT

See PETS category.

✿ CHILD & FAMILY DEVELOPMENT

Child & Family Development - Grades 9+
Child & Family Development - Grades 6-8
Child & Family Development - Grades 3-5

Requirements:

- Exhibitors should be prepared to discuss, in conference judging, the age and other characteristics of the child for whom the exhibit is intended and how the exhibit contributes to the child's growth, development, and well-being.
- If the exhibit is designed to be interactive with children, the item is to be used with children before exhibiting and a photograph of this activity must accompany the exhibit. Signs of use will not detract from the placing of the exhibit.

Exhibit Suggestions:

- 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 exhibitor.
- Original book, story, poem, song, play, cookbook, audio or video tape and narrative, activity book, safety manual for children, file about children and/or families.
- Scrapbook, photographs, items, reports, video, etc., on family heritage with description of what was learned about self and family.
- A creatively developed program and/or item used for or with a person with a special need (gifted, developmentally delayed, physically impaired, etc.).

✿ CITIZENSHIP

Citizenship - Grades 9+
Citizenship - Grades 6-8
Citizenship - Grades 3-5

Exhibit Suggestions:

- 3-Ring binder, report binder or 3-sided display reporting on community projects and/or citizenship activities which you or your club completed under your leadership. Include plans of action as well as the evaluation of each.
- A written narrative and/or visual communication presentation of 8 to 10 minutes, using photos, video and/or slides, to show how you worked with others in your community to solve problems.

✿ CLOTHING AND TEXTILES

Clothes You Make - Grades 9+
Clothes You Make - Grades 6-8
Clothes You Make - Grades 3-5
Clothes You Buy - Grades 9+
Clothes You Buy - Grades 6-8
Clothes You Buy - Grades 3-5
Non-Garment - Grades 9+
Non-Garment - Grades 6-8
Non-Garment - Grades 3-5
Recycled Clothing - Grades 9+
Recycled Clothing - Grades 6-8
Recycled Clothing - Grades 3-5
Clothes You Make - Grades K-2

Clothes You Buy - Grades K-2
 Non-Garment - Grades K-2
 Recycled Clothing - Grades K-2

- A poster showing cost comparisons, wardrobe building, accessorizing, care, etc.

Recycled Clothing:

Recycled, repurposed and restyled clothing. With a shirt from a garage sale, pants from a consignment store and/or a retro jacket from a second-hand shop, put together an outfit that is unique and 'new'.

Fashion Revue Clothes You Make or Buy Requirements

- Participants may model any clothing they have constructed, restyled or purchased as a part of their 4-H clothing project.

Note: At State Fair, clothing exhibitors can use the same garment to participate in both Fashion Revue and regular clothing in the same year.

☘ CLOVERBUDS

NEW this year! When you go in to westottertail.FairEntry.com to enter your Cloverbud in any of the following categories, you will find them all listed in one place! Click on the Cloverbud Department and see all the possibilities listed in the Division. We think you're going to like it!

4-H Cloverbuds may enter any of the following classes. It is recommended that they not exhibit more than 3 non-livestock projects total. Cloverbuds will be paid premium for 3 non-livestock exhibits maximum (not counting demonstrations).

Premiums and a special Cloverbud ribbon will be awarded. Projects will not be ranked blue, red, or white. Our goal is to keep the experience as non-competitive as possible for these younger members.

Cloverbud Non-livestock Project 1
 Cloverbud Non-livestock Project 2
 Cloverbud Non-livestock Project 3

Some ideas include: 3 cut flowers in a vase, a potted plant, vegetable creature or creation, a nutritious food snack, a simple item you made for your home like a pillow, placemat, etc., rock creature, paper bag puppet, 4 interesting objects of nature, tree leaf collection, display of insects, simple craft item, or anything else you can think of.

No State Fair trips in this division.

Requirement:

- Cloverbud members have completed kindergarten through 2nd grade.

**Demonstrations Day is Thursday, June 28, at PioneerCare,
 1131 South Mabelle Avenue, Fergus Falls**

Demonstration - Cloverbud Individual
 Demonstration - Cloverbud Team

All 4-H'ers giving a Demonstration/Presentation will receive \$10.00.

Clothing Day is Tuesday, July 10, 8:00 am – noon at Kennedy Secondary School

Clothing Day will be Tuesday, July 10 at Kennedy Secondary School, FF. All Clothing members will receive a separate mailing in late June with all the details.

CLOTHING AND TEXTILES – Fashion Revue

(Judged prior to county fair at Clothing Day)

Fashion Revue Clothes You Make - Grades 9+
 Fashion Revue Clothes You Make - Grades 6-8
 Fashion Revue Clothes You Make - Grades 3-5
 Fashion Revue Clothes You Buy - Grades 9+
 Fashion Revue Clothes You Buy - Grades 6-8
 Fashion Revue Clothes You Buy - Grades 3-5
 Fashion Revue Recycled Clothing - Grades 9+
 Fashion Revue Recycled Clothing - Grades 6-8
 Fashion Revue Recycled Clothing - Grades 3-5
 Fashion Revue Clothes You Make - Grades K-2
 Fashion Revue Clothes You Buy - Grades K-2
 Fashion Revue Recycled Clothing - Grades K-2

An "outfit" (e.g., scarf, top and skirt) is considered ONE project/entry and will receive one premium only.

Clothes or Non-Garment You Make Requirements:

- Each garment must include an information tag listing: pattern company name and number, fiber content of fabric and care instructions, member name and club.
- Garments may have been worn before showing but should be cleaned before exhibiting.
- Items constructed should be appropriate for skill level and experience of exhibitor.

Clothes or Non-Garment You Make Exhibit Suggestions:

- A project such as a pillow top, tote bag, chef's apron, skirt with elastic waistband, backpack, etc.,
- A constructed garment made from a pattern
- Creative sewing such as wearable art, costume, or use of techniques such as knitting, cross-stitch, etc., incorporated into garment.
- Clothing or textiles display showing a "fact" or "why" related to clothing selection, care.
- Garment mended, repaired or recycled, with color photo of original garment and explanation of steps used.

Clothes or Non-Garment You Buy Requirements:

- The purchased garment or outfit **must** be accompanied by an 8-1/2"x 11" binder with, at minimum, the following information:
 - a) Colored photo of member wearing the garment. Label photo with name, county, and color of complexion, hair and eyes.
 - b) Cost of garment. Explanation of why garment was purchased and examples of ways it will be used in existing wardrobe, and include inventory of wardrobe.
- Garments may have been worn before showing but should be cleaned and pressed before exhibiting.

Clothes or Non-Garment You Buy Exhibit suggestions:

- A purchased garment that fits into your wardrobe plan.

Clothes You Make - Cloverbud
 Clothes You Buy - Cloverbud
 Non-Garment - Cloverbud
 Recycled Clothing – Cloverbud

**Fashion Review is Tuesday, July 10, 7:00 – 9:00 pm at
 Kennedy Secondary School**

Fashion Review Clothes You Make - Cloverbud
 Fashion Review Clothes You Buy - Cloverbud
 Fashion Review Recycled Clothing – Cloverbud

An “outfit” (e.g., scarf, top and skirt) is considered ONE project/entry and will receive one premium only.

**Food Review is Thursday, June 28, at PioneerCare, 1131
 South Mabelle Avenue, Fergus Falls**

Food Review - Cloverbud
 Performing Arts - Cloverbud

In Livestock projects Cloverbuds are limited to one animal per species; and in the dairy project they may exhibit only a beginner calf (born after March 1st). **A parent or older 4-H'er (who has completed 6th grade) is required to lead the animal and be in control of animal while Cloverbud is in show ring.** Cloverbuds will not be eligible for 4-H Auction.

NOTE: Cloverbud may borrow an older sibling's animal for showing.

Beef - Cloverbud - calf born after March 1
 Dairy - Cloverbud - calf born after March 1
 No premium: Dress a Calf contest (see Dairy section)
 Goat - Cloverbud - dairy or meat, any age
 Llama Showmanship - Cloverbud
 Llama Costume - Cloverbud
 Poultry - Cloverbud - 1 pen of ducks, chickens, etc.
 Poultry Poster - Cloverbud (See details in Poultry division)
 Rabbit - Cloverbud - any breed or class
 Rabbit Poster - Cloverbud (See details in Rabbit division)
 Sheep - Cloverbud - wether or ewe lamb born after January 1
 Lamb Lead - Cloverbud
 Swine - Cloverbud - born January 1 of current year or later
 Pets - Cloverbud - (this includes dog, cat, etc.) Brought to fair **Tuesday, July 17** only. Must have proof of current rabies vaccination.
 Horse - Cloverbud Barrels
 Horse - Cloverbud Western Pleasure
 Horse - Cloverbud Horse Showmanship
 Bring horse day of show or house at fairgrounds for entire fair.
Cloverbud Horse Show: Saturday, July 21, 10:00 am
 Dog Show - Cloverbud
 Cloverbud show is at start of Dog Show, **Sunday, July 29, 9:00 am**
Must have participated in dog training.

No State Fair trips in this division.

Requirement:

- Cloverbud members have completed kindergarten or **grades 1-2.**

✿ CLUB EXHIBITS

CLUB BANNER

Club Activity - Banner

Two banners will be selected for State Fair exhibit.

Requirement:

1. Banner must be 3' x 5' and designed to hang vertically.
2. It must be completed and equipped with a dowel (minimum size 3' 8") and ready to hang.
3. Banner must be of fabric (no paper) and can be one or two-sided.
4. Club name on 3 x 5 card pinned to back. (Any assembly technique can be used.)

CLUB BOOTH

Club Activity - Booth

Booth size is eight feet (8') wide, four feet (4') deep and six feet (6') high. **There are a limited number of booths available so call Extension with your request.**

Requirement:

-The booth should depict an area of work or program of current emphasis. No State Fair trip.

CLUB PLANTER

Club Activity - Planter

1. Focus on 4-H Project Theme (obvious one being Flower Gardening, or Entomology, Shooting Sports, Livestock, etc.)
2. Club is responsible to water planter during County Fair.
3. Planter remains at Fairgrounds, the 5 days of County Fair only.
4. Planter must be removed at 8:00 pm July 21.
5. No size limitations.
6. Include weather-proof club identification.
7. Check in at Entry table in main arena for unloading instructions.

One exhibit per club. No State Fair trip offered.

CLUB SCRAPBOOK (Historian Book)

Club Activity - Scrapbook

Requirement:

-Show and explain your club activities and participation in community/club events.

Suggestions:

- Mark names of 4-H'ers in photos.
- Put dates (including year) and locations on photos and activities.
- Add a short description of activities.
- No State Fair trip offered.

COMMUNITY PRIDE - Club

Club Activity - Community Pride

One exhibit will be selected for State Fair.

Requirements:

1. The exhibit may include a three-dimensional display, video or other visual method which visually highlights the entire project or

certain parts in a manner which tells the public what positive effects the project had on the community.

2. One or two club youth who participated in the project may represent the club in conference judging.

SHARE THE FUN - Club

Judged prior to county fair at Clothing Day.

Club Activity - Share the Fun

If you have the ability to sing, play a musical instrument, dance, perform in a fun skit, twirl a baton (no fire please!), or do a dramatic reading, why not share it in our annual Share-the-Fun Talent Show? Many of you do these types of activities in your local schools so why not do them because you are part of the 4-H program?

Share the fun will be judged at Clothing Day, **Tuesday, July 10**, throughout the evening at the Clothing Fashion Revue Program held at Kennedy Secondary School. The top two acts will have the opportunity to represent WOT at the State Fair.

BARN QUILT - Club

Club Activity - Barn Quilt

Barn quilt size is 4' x 4' or 8' x 8' and made of MDO board.

Must be framed and ready for installation.

All "quilts" will be displayed at County Fair.

Not eligible for State Fair, unless submitted as Community Pride project.

COMPUTER

Computer - Grades 9+

Computer - Grades 6-8

Computer - Grades 3-5

Requirements:

- Computers may be used in judging, but emphasis is on documentation, screen print, and summary. 4-H'ers are responsible for providing and securing any hardware used for judging; hardware may not be left on display.
- Reports and written summaries should be bound in a booklet or placed in a folder.

Exhibit Suggestions:

- Display showing the parts of a computer and how they work, consumer choices involved when buying a computer, how computer software can be put to use. Include statement of purpose, written plan for use, and examples of use.
- Program/software developed by the 4-H member including a statement of objectives, and discussion of program. Program/software be original or adapted by the member from an existing program.

CONSUMER EDUCATION

Consumer Education - Grades 9+

Consumer Education - Grades 6-8

Consumer Education - Grades 3-5

Requirements:

- Exhibitor should be able to explain his/her choices and the reasons for those choices.

Exhibit Suggestions:

- Label comparison showing different types of labels and/or models of same included.
- Consumer comparison comparing several models of the same item, showing feature, costs, etc., with best item selected and reasons why.

CRAFTS & FINE ARTS

- Members enrolled in Creative Arts can exhibit in both Fine Arts and Crafts.

Note: All exhibitors are awarded at the state fair Blue, Red & White Ribbons, counties can elect to participation ribbons. Then evaluation panels may determine special purple recognition awards.

CRAFTS

Crafts - Grades 9+

Crafts - Grades 6-8

Crafts - Grades 3-5

SCRAPBOOKING (limit one)

Scrapbooking - Grades 9+

Scrapbooking - Grades 6-8

Scrapbooking - Grades 3-5

Requirement:

- Each exhibit will be evaluated on its individual merit as a craft/kit.
- Emphasis is on the creative process and the employment of design elements and principles. The craft/kit exhibit develops from someone else's ideas and can be exactly replicated or replicated with modifications.
- All art objects must be appropriately finished. Exhibits will be disqualified if not ready for hanging, displaying, etc. (i.e. wire or hooks on paintings, bases for 3-dimensional work, etc.)

Exhibit Suggestions:

- For a beginner, choose a project that teaches new techniques. For advanced, choose a project requiring masterful craftsmanship.
- Basket making, tie dye, beading, ceramics, leather tooling, calligraphy, work from kits, etc.

FINE ARTS

Fine Arts - Grades 9+

Fine Arts - Grades 6-8

Fine Arts - Grades 3-5

Requirement:

- Each exhibit will be evaluated on its individual merit as an original fine art.
- Emphasis is on the creative process and the employment of design elements and principles. The fine art exhibit should show proof that it is developed from the 4-Hers own ideas and imagination.
- All art objects must be appropriately finished. Exhibits will be disqualified if not ready for hanging, displaying, etc. (i.e. wire or hooks on paintings, bases for 3-dimensional work, etc.)

Exhibit Suggestions:

- For a beginner, choose a project that teaches new techniques. For advanced, choose a project requiring mastery.

- Original work (no kits) in drawing, painting, sculpture, print process, textiles, pottery, etc.

CROP SCIENCES

CORN

- Corn - Grades 9+
- Corn - Grades 6-8
- Corn - Grades 3-5

Requirements:

- Crop must be grown on your farm in the previous growing season.
- Include 3 x 5 index card listing the variety.

Exhibit Suggestions:

- A two-quart exhibit of shelled corn (no ear corn), must be placed in a clear two-quart jar or 2 clear one quart jars.
- An educational display illustrating plant reproduction, soils, plant growth factors, plant characteristics, growing and using plants, plant growth and food production, examples of a plant disease, and the life cycle of that disease explaining causes and control.

SMALL GRAINS & LEGUMES

- Small Grains & Legumes - Grades 9+
- Small Grains & Legumes - Grades 6-8
- Small Grains & Legumes - Grades 3-5

Requirements:

- Crops must be grown on your farm during the previous or current growing season
- Include 3 x 5 index card listing the variety.

Exhibit Suggestions:

- A two-quart exhibit of any soybean or small grain variety, must be placed in a clear two-quart jar or 2 clear one quart jars.
- An educational display illustrating one of the following ideas: plant reproduction, soils, plant growth factors, plant characteristics, growing and using plants, plant growth and food production, examples of a plant disease, and the life cycle of that disease explaining causes and control.

Special Corn & Soybean Awards

Otter Tail/Grant County Corn and Soybean Growers Association sponsor special awards for members exhibiting at the county fair in corn and soybean projects. There will be a cash award of \$40.00 given to the best 2 qt. sample of (2017) corn and best 2 qt (2017) soybeans.

A \$40 cash award will also be given to the best ten ears field corn.

**Sponsored by the Otter Tail-Grant County
Corn & Soybean Growers Association**

DEMONSTRATIONS

Demonstrations Day is **Thursday, June 28**, at PioneerCare, 1131 South Mabelle Avenue, Fergus Falls

- Demonstration - Grades 9+ Individual
- Demonstration - Grades 9+ Team
- Demonstration - Grades 6-8 Individual
- Demonstration - Grades 6-8 Team
- Demonstration - Grades 3-5 Individual
- Demonstration - Grades 3-5 Team
- Demonstration - Cloverbud Individual
- Demonstration - Cloverbud Team

All 4-H'ers giving a Demonstration/Presentation will receive \$10.00 on Demonstration Day, plus their premium after the fair.

- If you are a part of a Team Demo, indicate your partner's name while registering in FairEntry.com.

- Demonstrations Day will be Thursday, June 28 at PioneerCare, 1131 South Mabelle Avenue, Fergus Falls. Contact Extension for further details. All 4-H'ers who sign up for Demonstrations will receive a mailing prior to the event.

- Demonstration/Illustrated Presentations may be related to any project that the member is enrolled in or to any area of interest or expertise the 4-H'er has. Presentations may be an individual or a two-person team. Individual presentations shall not exceed 15 minutes in length and team presentations should not exceed 25 minutes in length.

- Presentation Software (e.g., MS PowerPoint) may be used for both Demonstrations and Illustrated Talks. If Presentation Software is used in a Demonstration, the presentation software should supplement the Demonstration (hands on demonstrating should still be the basis of the entry). If used for an Illustrated Talk, the presentation software can be the basis for the entire talk; however, the member must interact with the presentation and information - not just step to the side and let the presentation play. (Self-presenting entries created with presentation software should be burned on to a DVD and entered in the "Video" class.)

Special NOTE: If presentation software is utilized in either a Demonstration or an Illustrated Talk, the 4-H'er is responsible for securing any equipment necessary for judging. Extension staff may be able to assist in this process, but it is the responsibility of the exhibitor to contact Extension staff WELL BEFORE the scheduled judging.

LIVESTOCK DEMONSTRATIONS

(Judged prior to county fair)

- Livestock Demonstration - Grades 9+ Individual
- Livestock Demonstration - Grades 9+ Team
- Livestock Demonstration - Grades 6-8 Individual
- Livestock Demonstration - Grades 6-8 Team
- Livestock Demonstration - Grades 3-5 Individual
- Livestock Demonstration - Grades 3-5 Team

Livestock Demonstrations will be given at the regular Demonstration/Food Review Day, **Thursday, June 28 at PioneerCare, 1131 S. Mabelle Ave., Fergus Falls.** Animal is NOT mandatory at the County Demonstration. Animal is required at State Fair, if you win the trip in your species Livestock Demonstration.

There is a separate trip to State Fair in Livestock Demonstrations held during Livestock Weekend. If you are Livestock Demonstration Champion, you win a State Fair trip with your animal. Consult your local 4-H staff for details.

✿ ILLUSTRATED PRESENTATIONS

(Judged prior to county fair)

- Illustrated Presentation - Grade 9+ Individual
- Illustrated Presentation - Grade 9+ Team
- Illustrated Presentation - Grade 6-8 Individual
- Illustrated Presentation - Grade 6-8 Team
- Illustrated Presentation - Grade 3-5 Individual
- Illustrated Presentation - Grade 3-5 Team

Illustrated Presentations are an oral presentation that presents an idea, concept, viewpoint or experience in an educational or informative format. For example, an Illustrated Presentation could be a report on leadership lessons learned through a trip to Washington DC or an educational presentation that explores sustainable energy options. Illustrated Presentations most often consist of interaction with supporting visuals like posters, charts or overhead transparencies. Supporting visuals can include technology-based options like presentation software (e.g., MS PowerPoint). Supporting visuals may include tangible items, but generally little or no activity takes place with the item.

✿ YOUTH IN ACTION DEMONSTRATIONS

(Judged prior to county fair)

- Youth In Action Demonstration - Grades 9+ Individual
- Youth in Action Demonstration - Grades 9+ Team
- Youth in Action Demonstration - Grades 6-8 Individual
- Youth in Action Demonstration - Grades 6-8 Team
- Youth in Action Demonstration - Grades 3-5 Individual
- Youth in Action Demonstration - Grades 3-5 Team

Youth in Action presentations are interactive, continuous presentations that are approximately 45 - 50 minutes in length. Topics selected for a Youth in Action demonstration may be related to a project in which the member is enrolled or to any other area of interest or expertise the member has. Involving the audience in the process is the primary focus of Youth in Action and constitutes a major portion of the evaluation results.

✿ DOG

See PETS category or, if participating in the Dog Show, see DOG in Livestock Projects.

✿ ELECTRIC

- Electric - Grades 9+
- Electric - Grades 6-8
- Electric - Grades 3-5

Requirements:

- A wiring diagram or schematic must accompany all electric and electronic exhibits

Exhibit Suggestions:

- Working electrical item constructed for home, yard, or farm.
- Diagram of wiring in your home/farm showing switch locations, fuse boxes, wire size, capacities, fuse sizes, total bulk wattage, appliance wattage, number of circuits, and type of wiring installation.

- Electronic item built from kit, plan, or own design with an explanation of what it is and how it is used.
- Display ideas: Careers in electrical field, electrical experiment (may or may not have worked), educational display used in teaching others, etc.

✿ ENGINEERING DESIGN

See more <http://www.extension.umn.edu/youth/mn4-H/projects/set/> for more information

AQUATIC ROBOTICS

- Aquatic Robotics - Grades 9+
- Aquatic Robotics - Grades 6-8
- Aquatic Robotics - Grades 3-5

Requirements:

- Design and build their own remote-operated vehicle (ROV)
- Use and adapt it to monitor water quality/Aquatic Invasive Species (AIS) education
- Work in teams of a least 3 youth, or individuals may exhibit
- Illustrate the community partnership (example: DNR, Water Resource or Lake Association)

Exhibit Suggestions:

- Display, binder, poster illustrating the process of doing the activity/project
- Exhibit of ROV
- Display showing their use in Aquatic Invasive Species (AIS) education
- Booklet showing their progression in Aquatic Invasive Species (AIS) education as a team

ENGINEERING DESIGN

- Engineering Design - Grades 9+
- Engineering Design - Grades 6-8
- Engineering Design - Grades 3-5

Requirement:

- Include description of the problem/challenge being solved
- Include description of the **engineering design** process/steps undergone to solve problem

Exhibit Suggestions:

- Display, binder, poster illustrating the process of doing the activity/project
- Exhibit of engineering design product
- display, binder, poster, webpage exploring a related career

ROBOTICS

- Robotics - Grades 9+
- Robotics - Grades 6-8
- Robotics - Grades 3-5

Note: The goal of the 4-H robotics program is for the 4-H members to explore science, technology and engineering through designing and building a functioning robot. The robot can be either programmable or remote controlled. The robot can be created by an individual or a group.

Requirements:

- Exhibits must be labeled with name, and county on all pieces of the exhibit.
- Include a description of the robot's ability to sense, follow a plan and complete an act
- Exhibits may have a one-page report explaining the function, purpose and construction of the robot.

Exhibit Suggestions:

- A robots, a display, diagrams of programming, booklets, etc.
- display, binder, poster, webpage exploring a related career

ENGINEERING DESIGN CHALLENGE LEVEL 1 & 2

(formerly Rube Goldberg)

Engineering Design Challenge Team Member:

Level 1 - grades 3-8.

Level 2 - grades 9-12

Youth in grades 6 and above can participate in Level 2 if they have and at least 2 years previous experience in Level 1.

Each member (regardless of age) needs to register in one of these classes.

An Engineering Design Challenge machine is based on Rube Goldberg, an overly complex contraption designed to accomplish a simple task. The best created machines use a variety of everyday items in a whimsical way to create a series of chain-reaction steps to accomplish a simple task. In the contest, youth not only employ physics and engineering, but humor and storytelling, to create their machine.

This activity is a team event of at least 3 and no more than 10 members.

Requirements:

1. Please refer to the Engineering Design Challenge Level 1 and 2 Rule Books at www.4-H.umn.edu/events/engineering-design-challenge/ for complete details.
2. Teams of at least 3 youth
3. Minimum of 10 steps
4. Machine must operate in 2 minutes or less
5. Exhibit physical size limited to 6 ft x 6 ft x 6 ft
6. Explain one thing/step on the machine that they use science content and skills to help solve a problem/challenge
7. Need to keep a written record illustrating the process of doing the project.

Exhibit Suggestions:

- Engineering Design Challenge machine itself
- Display, binder, poster illustrating the process of the doing the activity/project

Note: In 2018, the State Engineering Design Challenge for Level 1 and 2 (formerly Rube Goldberg) will be held at a site other than the State Fair. However, challenge teams are invited to showcase their machine and project at the State Fair. Participants can also have other general projects judged.

✿ ENTOMOLOGY

Entomology - Grades 9+

Entomology - Grades 6-8

Entomology - Grades 3-5

Requirements:

Insect Collection exhibits:

- A. Collections shall be contained in a glass topped case (drawers available for purchase in varying sizes); approximately 19" x 16.5" x 3" to 24" x 18" x 3" Arrange so that the case may be displayed in a horizontal position. Place project label on lower right corner of glass top. Only one case per exhibitor is allowed.
- B. Specimens must be collected. Purchased insects are not acceptable.
- C. Exhibitors must be the collector of the specimens in the project.
- D. Specimens must be properly pinned with insect pins. Small insects may need to be placed on cardboard points.
- E. Specimens must be properly labeled.
 - 1) The location, date, and collector must be included on the labels. County and state (and country, when applicable) are minimum location information that should be included. It is valuable to include nearest town or township where the specimen was collected, the type of habitat it was collected from (e.g. on elm tree; on lake shore; indoors.), and the common name of the insect.
 - 2) All labels should be visible so they can be read. Use permanent ink marker or pencil to write labels. Labels produced by a computer printer are acceptable. Ballpoint ink or non-permanent markers are not acceptable.
- F. For more specific information on pinning, labeling, other information, see *Collecting and Preserving Insects, A MN 4-H Entomology Resource*, www.4-H.umn.edu/projects/entomology .
 - A. Emphasis of project must relate to an aspect of entomology.
 - B. Project must demonstrate specific knowledge of insects. Be prepared to discuss references and sources (e.g. books, magazines, internet, interviews with an expert etc.)
 - C. Live projects (e.g. bee or ant colony) will be accepted if the project can be self-sustaining for up to 14 days without special care.
 - D. A written report or journal should accompany the project, introducing the subject, describing the process (materials and method), predicting an outcome, stating the results, and discussing any conclusions. Pictures, drawings, charts, tables, or other figures may be used.

Exhibit Suggestions:

1. General Insect Collection: must consist of a minimum of 50 species of adult insects representing at least 8 orders.
2. Specialty insect collection can include but is not limited to a collection of a single order (e.g. Coleoptera or Lepidoptera), a collection of immature insects, a collection of insects from a particular habitat (e.g., aquatic, forest, or prairie) or a collection of economic pests of a specific crop (e.g., insects attacking corn).
3. Non-Collection Project can include but is not limited to life history displays (e.g. insect life cycle), scientific investigation (e.g. insect habitats or effects of environment factors on insects), or insects in current events.

✿ EXPLORING ANIMALS

- Exploring Animals - Grades 9+
- Exploring Animals - Grades 6-8
- Exploring Animals - Grades 3-5

Requirements:

- This area is for 4-Hers who wish to learn more about a given species. Animal ownership is not required.
- 4-Hers enrolled in Exploring Animals, Beef, Dairy, Goat, Poultry, Rabbit, Sheep or Swine may exhibit in this category.

Exhibit Suggestions:

- An educational exhibit to show or explain something 4-H'er made, did, learned, or may explore consumer issues, breeds or careers.

✿ EXPLORING THE ENVIRONMENT

- Exploring the Environment - Grades 9+
- Exploring the Environment - Grades 6-8
- Exploring the Environment - Grades 3-5

Exhibit Suggestions:

- Display on environmental pollution describing the causes, effects on people and other living things, and methods to correct the situation.
- Display showing features of soils such as color, structure, texture.
- A display or journal of Minnesota plants, insects, animals, birds or fish. Include pictures or drawings and information on habits, foods, and shelter needs.
- Display showing erosion control practices such as minimum tillage, terraces, contour strips, grassed waterways, field windbreaks, water control structures, etc.

✿ FISHING SPORTS

- Fishing Sports - Grades 9+
- Fishing Sports - Grades 6-8
- Fishing Sports - Grades 3-5

Exhibit Suggestions:

- Fish identification. Describe the habitat and food needs of selected Minnesota fish; develop a panel display explaining the life history of a fish; create a model or exhibit identifying the parts of a fish.
- Fishing Knots. Identify how and where each knot is used; fishing equipment which is made or repaired such as lures, fishing rods and reels, ice fishing rig, or other fishing equipment;
- Safety practices and techniques that are related to fishing or boating.
- Examples of how water quality affects the fish eco-system.

✿ FLOWER GARDENING

- Flower Gardening - Grades 9+
- Flower Gardening - Grades 6-8
- Flower Gardening - Grades 3-5

Requirements:

- Label each container according to kind or variety.
- Outdoor living flowers and plants are to be exhibited in this area (including Outdoor Fairy Gardens)
- Live plant material will be accepted if it can be maintained in a fresh condition with ease.

Exhibit Suggestions:

- When exhibiting cut flowers, we suggest:
 1. three stems of one variety of annual flower, or
 2. one stem of a hardy perennial, or
 3. one stem of summer flowering bulbs, or
 4. one blossom of a tea rose, or
 5. one stem of a hardy shrub rose.
- Flower bouquet or arrangement on any theme.
- Display of dried flowers with a card explaining the drying method.
- My Flower Garden - Exhibit on poster board, not to exceed 22 x 28". Include a plan of the garden drawn to scale, the correct variety name and pictures (or photographs) of the flowers grown. Be prepared to discuss the process from soil preparation to blooming.
- Educational Exhibit showing the principles of propagation or reproduction, nutrition, culture and physiology (how a plant lives and grows).

✿ FOOD AND NUTRITION

FOOD AND NUTRITION

- Food and Nutrition - Grades 9+
- Food and Nutrition - Grades 6-8
- Food and Nutrition - Grades 3-5

Requirements:

- Exhibit may be food items and/or displays.
- Exhibitors should be prepared to discuss with the judge, references and information sources, nutritional values, methods, menu, costs, etc., as appropriate to that exhibit.
- The exhibit may be a poster, mobile, three-dimensional display, scrapbook, balance beam, charts, journals, pictures, slides, equipment, supplies, photographs, puppet play, skit, judging comparison, taped interview, file of ideas, research study, etc.
- Pictures, food models, plaster, plastic, papier-mâché, etc., are preferable to perishable foods in an educational exhibit. Perishable foods should be used only if they add to or help explain the educational exhibit. If perishable food is a part of the exhibit, the food is to be brought just for judging.
- Exhibits containing perishable foods, which will be discarded, must include a colored photograph of the food. The photograph should be taken prior to the County Fair and attached to the display. This photograph and a 3x5 note card listing nutrition information and the recipe will be displayed at the exhibit instead of the food.

Exhibit Suggestions:

- One serving of a nutritious food (vegetable or fruit dish, snack, bread, dairy, etc.). Include 8½ x 11 poster showing nutritional value, recipe, and a photo of the food.
- Study of nutrients needed for yourself or someone else, using the dietary guidelines and MyPlate.
- Make a food or fitness plan for yourself or someone else and show how it relates to nutritional and energy needs. (Example: an athlete on a volleyball team, a teen who doesn't have a lot of time).
- Adapt a recipe(s) to show healthier ingredient choices.

- Study of how physical fitness and/or food choices are related to disease (such as: cancer, heart disease, osteoporosis, diabetes, etc.).
- Study of labels from similar food items, comparing important nutrient content like fat, fiber, and sugar.
- Exhibit showing food and/or kitchen safety.
- Nutrition/food science experiment.

FOOD PRESERVATION

Food Preservation - Grades 9+

Food Preservation - Grades 6-8

Food Preservation - Grades 3-5

Requirements:

- Exhibitor must be enrolled in Food & Nutrition project.
- All recipes, procedures, and times followed must be according to current USDA and/or National Center for Home Food Preservation recommendations.
- All food preservation exhibits must be labeled with a 2" x 3" label. Labels to include county, name, grade, product, style of pack, processing method (boiling water bath or pressure canner), date, processing time, date processed and source of recipe. Pressure canned items indicate dial or weighted gauge and how many pounds of pressure used.
- Jars must be heat-tempered glass canning jars.
- All jars must be sealed. Leave screw bands on two-piece jar lids. Jellies and jams must be covered with lids.
- Use pint jars for fruit, vegetables, and fish; one-half pint jars for jams and jellies; 2- 1 pint jars or one quart jar for pickled products.
- Jellies and jams must be processed in boiling water bath according to USDA and/or University of Minnesota food preservation publications, available through the Extension Office. Note: Paraffin is not acceptable.
- No artificial food coloring should be added to entries.
- Dried foods may be stored in glass jars, self-sealing plastic bags or airtight plastic bags. The quantity of dried foods should be: fruits and vegetables - 1/2 cup or more of each, herbs - 1/4 cup of each in whole leaf form, 3 strips of meat (i.e. venison or beef jerky).
- Preserved within the past year.

Exhibit suggestions:

Suggested exhibits include one (1) jar or one (1) bag of product:

- Vegetables or fruits
- Jams, jellies, preserves, low-sugar spreads (no frozen)
- Pickled products (fermented or added acid, including pickles, sauerkraut, relishes, salsa).
- Meats, poultry and/or fish. (Fish must be in pint jars.)
- Dried vegetables or dried fruits.
- Dried herbs.
- Beef or venison jerky.
- Food science experiment or educational display.

FOOD REVIEW (judged prior to county fair)

Food Review - Grades 9+

Food Review - Grades 6-8

Food Review - Grades 3-5

Exhibit suggestions:

- Food Review will be judged along with Demonstrations on **Thursday, June 28** at PioneerCare, 1131 South Mabelle Avenue, Fergus Falls.
- Bring only one main food item, along with display which includes place setting.
- Bring photo, menu, and recipe to fair for display only.
- Contact Extension office for Food Review details.

FOREST RESOURCES

Forest Resources - Grades 9+

Forest Resources - Grades 6-8

Forest Resources - Grades 3-5

Requirement:

- Exhibits should be mounted on cardboard or other sturdy material.

Exhibit Suggestions:

- Collection of leaves or needles with twigs, identified with their common name. Common name should be printed near the identified leaf/needle.
- Photographic display of forest products--include the name of the product/use to identify the photograph.
- Display showing tree growth; annual ring cross-sections; make a seed collection.
- Prepare a report with drawings about your favorite tree--include name of tree, drawings or pictures of tree, facts and uses of the tree, and other appropriate information.
- Display showing layers of the forest; renewable versus non-renewable resources; forestry careers; leaf and twig identification; taxonomic keys; tree road maps.
- Display showing forest succession; tree and forest measurements; fire's effect on the forest; how trees grow; forest types; harvesting methods; entomology of the forest; pathology of the forest.
- Display showing forest products, including maple syrup production; wood products; Christmas trees or other forest resources (recreation, wildlife, etc.).
- Display showing specialized woodland management, including shelterbelts/windbreaks and urban forestry.

FRUIT

Fruit - Grades 9+

Fruit - Grades 6-8

Fruit - Grades 3-5

Requirements:

- Include a 3 x 5 index card listing the varieties of fruit, name and club of exhibitor.
- Exhibitor should bring 6 items of one variety of fruit.

Exhibit Suggestions:

- Display showing a comparison of several varieties of the same fruit (labeled); display using a branch to illustrate proper pruning of fruit trees and explaining the process; illustrate the many uses of fruits (fresh, jams, juices, cooking, baking, salads and recipes); illustrate the use of fruits as natural dyes.
- Educational display illustrating diseases (actual specimens) or insects (actual specimens) and methods of control.

✿ GEOLOGY

- Geology - Grades 9+
- Geology - Grades 6-8
- Geology - Grades 3-5

Requirement:

- Attach specimens securely to a backboard and display in a glass-topped case of the same model as used by the entomologists (approximately 19" x 16.5" x 3"). Specimens should be approximately 2" x 2". Label each specimen using the label described on page seven of the Geology Manual. Size of label may be reduced to fit display case, if needed. Attach specimens so they will not fall if case is set on its edge. Member must have knowledge of how specimens are identified as to rock or fossil type.

Exhibit Suggestions:

- Display of birthstones, a rock plate, or an egg carton collection (see geology bulletin), six silly silicates.
- Rocks, minerals, or fossils from within Minnesota or on a definite theme such as metamorphism, weathering, quartz minerals, ores, or a theme of your own choosing.
- Polished rock types used to make decorative items such as paperweights and jewelry; include an unpolished specimen of each rock type.
 - Educational exhibit showing the "science how's and why's" dealing with the principles of geology and natural earth sciences.

✿ GLOBAL CONNECTIONS

- Global Connections - Grades 9+
- Global Connections - Grades 6-8
- Global Connections - Grades 3-5

Exhibit Suggestions:

- Poster or report explaining what you learned as a result of a cross-cultural home stay experience.
- Report or display on mission trip, school trip, pen pal, etc.

✿ HEALTH

- Health - Grades 9+
- Health - Grades 6-8
- Health - Grades 3-5

Exhibit Suggestions:

- Report on a health issue (i.e. alcohol and chemical abuse, eating disorders, sexuality, sexually transmitted disease, pregnancy, stress, depression) of your choice.
- Report on a community project that you conducted on a health issue. Include objectives, audience, timetable, program description, materials, community support and evaluation.

✿ HOME ENVIRONMENT

- Home Environment - Grades 9+
- Home Environment - Grades 6-8
- Home Environment - Grades 3-5

Requirements:

- Members exhibiting in this project should be prepared to discuss and/or have written information to show how their exhibit applies to

- the home, how and where it is used or displayed, and all details of how it was made or selected. They should know about the subject matter of the specific exhibit, the materials used, how and why it was done, costs involved, and alternatives considered
- A photograph and report showing its place in the home environment must accompany exhibits that are items for the home.
- Pictures and wall hangings that are exhibited should be finished and ready to hang.
- Purchased kits ARE ALLOWED be used.

Exhibit Suggestions:

- Finished or refinished wood item, or reupholstered furniture.
- Repaired, restored, or remodeled item for the home.
- Chart and/or plan for the care and maintenance of the inside or outside of the home including daily, weekly, monthly, and yearly jobs.
- An article remade or reclaimed for the home with a link to the past, including history of use.
- Description, diagrams/photos, samples and cost of a redecorating or remodeling plan showing before and after.

✿ INDOOR GARDENING

- Indoor Gardening - Grades 9+
- Indoor Gardening - Grades 6-8
- Indoor Gardening - Grades 3-5

Indoor living flowers and plants are to be exhibited in this area (including Indoor Fairy Gardens)

Requirements:

POTTED PLANTS:

- Flowering plants should be in bloom.
- Foliage plants should be in vigorous condition.
- Plants should be grown in the exhibited container for at least one month prior to fair.

PLANTS IN HANGING CONTAINERS:

- Container for the plant should not be more than 10" in depth or diameter.
- Maximum total length of hanger and plant should not exceed 4'
- Evaluation will include appropriateness of plant for a hanging container, condition, arrangement, hanger to container to plant relationship, and plants being well established.

TERRARIUMS:

- The terrarium may not exceed 24" in any dimension.
- Terrarium should be planted four to six weeks ahead of exhibiting.
- Members must be able to identify all plant materials in their terrariums, know why they were selected for use (quality, container and design).

Exhibit Suggestions:

- Two or more varieties of house plants with common and botanical name.
- Terrarium or dish garden: consider terrarium material of general terrarium plant of native and woodland plants of Minnesota.
- Educational exhibit showing plant propagation, plant history, forcing bulbs, life cycle of a flowering plant, etc.

☘ LAWN AND LANDSCAPE DESIGN

- Lawn & Landscape Design - Grades 9+
- Lawn & Landscape Design - Grades 6-8
- Lawn & Landscape Design - Grades 3-5

Requirements:

- Posters showing physiology of a tree are not eligible for State fair
- Evaluation will be based on design, neatness, plants used, and story told.

Exhibit Suggestions:

- Landscape Plan (not to exceed 22" x 28") drawn to scale with plants and major areas of yard labeled; should show changes and future plans. Photographs showing "before and after" views are desirable.
- Design a project meeting for this project area (in booklet form) including what you would teach, how you would teach it, goals of your meeting, activities you would include, and visual aids you would use.

☘ NEEDLE ARTS

- Needle Arts - Grades 9+
- Needle Arts - Grades 6-8
- Needle Arts - Grades 3-5

Requirements:

- Each exhibit must include a consumer information tag, if appropriate, with the following information: pattern company name and number, techniques, fiber content, cost, and care instructions.
- **Participant encouraged to bring instructions/pattern**
- If item is framed, a wall hanging, or to be displayed on a wall, it should be finished and ready to hang.

Exhibit suggestions:

- Any item made by the member using the techniques of knitting, crocheting, embroidery and crewel, counted cross stitch, needlepoint, hardanger, hand quilting, weaving, appliqué, latch hook, tatting, other.
- Consumer Product Analysis: Comparison and evaluation of materials, supplies, or accessories used for a needle arts technique.
- Historical/Cultural Study: Story, poster, or display about a needle arts heirloom from your family or local history museum. Exhibit must include information about how item should be preserved.

☘ PERFORMING ARTS

- Performing Arts - Grades 9+
- Performing Arts - Grades 6-8
- Performing Arts - Grades 3-5
- Performing Arts - Grades K-2

Exhibit Requirements:

- Exhibit can be either a performance or an exhibit that shows a member's involvement or interest in the performing arts.
- To be eligible for State Fair, the member must be able to discuss the process of selecting, planning, performing and reflection on their project work.
- If the exhibit is an actual performance, the performance cannot last longer than 10 minutes.

Exhibit Suggestions:

- Poster or display about your involvement or interest in the performing arts.
- A puppet and script made and created by member.
- Create and perform a short story, show, music selection, etc., and include a write-up about it.
- A journal or scrapbook (with written statements) of current performing arts experiences.
- An educational display of some aspect of music, drama, or performing.

☘ PETS

- Pets - Grades 9+
- Pets - Grades 6-8
- Pets - Grades 3-5

Exhibit Suggestions:

- Educational display explaining pet care, health, nutritional needs, etc.; exhibit must include a photograph of 4-Her with their pet.
- Pet related exhibit, i.e. photo album, history of species display, animal care display.

☘ PHOTOGRAPHY

All photos should be in a plastic zip top bag.

PHOTOGRAPHY-Digital/film

CHECK THIS OUT – Tips and suggestions from 4-H photography judges to prepare your 4-H photography exhibit and get ready for judging at your county fair,
<http://www.extension.umn.edu/youth/mn4-H/projects/arts-communication/photography/docs/photography-tips-suggestions-for-projects.pdf>

Elements of Photography

Exhibit will focus on what makes a good photograph. ONLY overall image corrections are allowed including: cropping, brightness/exposure, color saturation, contrast, sharpening, black and white, sepia or color conversion and exposure correction.

Elements of Photography - Grades 9+

Elements of Photography - Grades 6-8

Elements of Photography - Grades 3-5

Equipment:

Any electronic device capable of capturing a photographic image to be printed (i.e. digital or film camera, DSLR, underwater camera, time lapse camera, cell phone, tablet) or drone with attached camera (operator must meet age requirements to use a drone).

Requirements:

- All photos exhibited MUST have been taken by the exhibitor during the current 4-H year.
- Exhibitor's name, club, county and exhibit class and lot should be printed on the back of the exhibit.
- NO picture frame or glass allowed.
- Allowed exhibits use 4 x 6", 5 x 7" or 8 x 10" photographs, mounted on mat board or poster board – neutral colors are best (white, tan, grey or black)
- Do not use construction paper or colored paper

- Use 14 x 22" board for 5 or more photos. Cut a smaller board for 2 to 4 prints or a panorama
- When a photo has been altered, the original (unaltered) 4 x 6" photo(s) must be included on the back of the exhibit

Exhibit ideas:

Issue: Focus on the plight of pollinators and the tremendous decline in numbers. Include photographs of pollinators and related information and a short narrative about possible causes and possible solutions.

Multi photo exhibits of 5 to 7 same sized photos matted or displayed on poster board, usually 4" x 6" photos. Some examples might include

- Photo story (usually 4 x 6" photos). Some examples might include:
 - A town's history: could include photos of residences: e.g., families, elderly citizens, government officials, veterans, teachers, service officials (fire, police, medical), volunteers, founding families' history, etc.
 - 4-H project, another member's 4-H project or your 4-H Club's Community Service projects
 - Environmental issue(s) or a community need
 - "A Day in the Life" of... (farm or city youth, an elementary, middle school or high school youth, etc.)
- Show a process (i.e. how to make something or steps to making something)
- Common theme or subject of 3 to 7 photos (4 X 6") (i.e. people, buildings, landscape, animals, seasons, action, nature, weather, shapes, close-ups, etc.).
- Panorama
- Enlargement or multiple 4 X 6" photos to show photographic elements, explaining how you used your camera to take these images. Ideas include: Aperture priority, shutter speed, rule of thirds, leading lines, ISO, etc.)
- Enlargement or multiple 4 X 6" photos to show photographic style. Ideas include: Illustrate lighting technique, journalistic photography, documentary photography, commercial photography, portrait setup, collage, etc.

✿ PLANT AND SOIL SCIENCE

- Plant & Soil Science - Grades 9+
- Plant & Soil Science - Grades 6-8
- Plant & Soil Science - Grades 3-5

Exhibit Suggestions:

- An educational display illustrating one of the following ideas: plant reproduction, soils, plant growth factors, plant characteristics, growing and using plants, plant growth and food production, examples of a plant disease, and the life cycle of that disease explaining causes and control.

✿ POTATOES

- Potatoes - Grades 9+
- Potatoes - Grades 6-8
- Potatoes - Grades 3-5

Requirement:

- Twelve potatoes (this year's crop) similar in size with variety identified on a 3 x 5 card.

Exhibit Suggestions:

- Educational display illustrating diseases and control, methods of mulching and reasons, causes and effects of sun scald.

✿ PUBLIC PRESENTATIONS

See Demonstrations category.

✿ QUILTING

- Quilting - Grades 9+
- Quilting - Grades 6-8
- Quilting - Grades 3-5

Requirement:

- Each Item should include information listing: pattern book & name, fiber content of fabric & batting, and care instructions. If not quilted or hand tied by the 4-Her, state who tied or hand/machine quilted the final project. (Note: depending on skill level of 4-Her, someone else may do the final quilting).
- Item may be either machine quilted, hand quilted, or hand tied.

Exhibit Suggestions:

- A quilted item, any finishing technique acceptable.
- Repair of an old quilt.
- A display showing the history of quilting, fabrics and patterns used in quilting, or a topic of your choice.

✿ SAFETY

- Safety - Grades 9+
- Safety - Grades 6-8
- Safety - Grades 3-5

Exhibit Suggestions:

- Explore a safety issue of your choice. Ideas include traffic safety, home safety, farm safety, community safety, fire prevention, and first aid kit. Include an item for display representative of project activity.
- Prepare a First Aid Kit and be able to explain the reasons for the items you included.
- Exhibit may be display, binder, poster, etc.

✿ SELF-DETERMINED

- Self-Determined - Grades 9+
- Self-Determined - Grades 6-8
- Self-Determined - Grades 3-5

Requirement:

- This Division is intended for an exhibit that doesn't fit in any other project area. This is not a "catch-all" category but rather intentional self-directed learning.
- A team may consist of not more than three (3) individuals from the same club or from up to 3 different clubs from the same county.
- To be eligible for State Fair, the member(s) must be able to discuss the process of selection, planning and management of a self-determined learning experience.

Exhibit Suggestions:

- Poster, display, or notebook showing the process of doing the activity/project
- Display of finished work
- Use this project area for Geospatial exhibits and Clowning exhibits in 2014

✿ SHOOTING SPORTS / WILDLIFE MANAGEMENT

- Shooting Sports/Wildlife Mgmt - Grades 9+
- Shooting Sports/Wildlife Mgmt - Grades 6-8
- Shooting Sports/Wildlife Mgmt - Grades 3-5

Requirements:

- Exhibit may not exceed 12" deep x 24" wide x 36" high, except that a gun, bow and arrow, or taxidermy item may be included in a display and will not be considered in the calculation of dimensions.
- MN and 4-H regulations for handling and storing firearms must be followed.
- No explosive materials are allowed. Arrows must be secured in such a manner so as to prevent their points or edges from being a hazard. Only sporting firearms and bows will be exhibited, displayed or demonstrated.

Exhibit Suggestions:

- Safety techniques applied to shooting activities (e.g., range commands and range safety, eye and ear protection, cleaning a firearm, dressing for safety-first aid, survival skills, etc.).
- Shooting Skills (e.g., basic safety rules, basic parts and functions of each piece of equipment, care and maintenance, accessories, position, etc.).
- Display illustrating key field identification features of a group of game animals (e.g., distinguishing various species of puddle ducks, differences among five look-alike species, of upland game birds, etc.).
- Leadership skills learned in your shooting sports club.
- History and nomenclature of trapping, hunting, and firearms.
- Sportsmanship: Ethical behavior and responsibility, effects of values to wildlife of modern game laws and regulations.

✿ SHOP

- Shop - Grades 9+
- Shop - Grades 6-8
- Shop - Grades 3-5

Requirements:

- Exhibit must not take up more than 20 square feet of floor space.
- Attach a card to all exhibits describing construction materials, unusual joinery finishing techniques, and total cost.

Exhibit Suggestions:

- Article made of wood or metal
- Wooden or metal article repaired, finished, or refinished.
- Display on properties, uses, or processing of wood.

✿ SMALL ENGINES

- Small Engines - Grades 9+
- Small Engines - Grades 6-8
- Small Engines - Grades 3-5

Exhibit Suggestions:

- Small engine that has been reconditioned or repaired.
- A device constructed by a member utilizing a small engine.
- Display on the parts of an engine, etc.
- **An educational display of some aspect of small engine use, care, reconditioning, etc.**

✿ TRACTOR

- Tractor - Grades 9+
- Tractor - Grades 6-8
- Tractor - Grades 3-5

Requirements:

- Check space requirements for large exhibits with staff. Large exhibits may be displayed outdoors
- Fuel must be removed from exhibits for display.

Exhibit suggestions:

- A poster, video, display, notebook, representing your project learning.
 - Restored, reconditioned, rebuilt tractor.
- Exhibit may represent learning about tractor safety, history, use, purchasing decisions, establishing a custom business with your field or lawn tractor, or material prepared to train others.

✿ VEGETABLE GARDENING

- Vegetable Gardening - Grades 9+
- Vegetable Gardening - Grades 6-8
- Vegetable Gardening - Grades 3-5

Requirements:

- Label vegetables with proper variety names.
- When exhibiting a collection of vegetables, it is recommended the collection includes six different kinds of vegetables (1 large specimen + 3 medium specimen + 2 small specimen = 6 different vegetable specimens for this project choosing any combination of the following:
 - A. One large vegetable specimen (cabbage, squash, melon, pumpkin, cauliflower, etc.)
 - B. Three different medium sized vegetable specimens and 3 of each specimen (tomatoes, onions, peppers, cucumbers, kohlrabi, carrots, beets, turnips, etc.)
 - C. Two small vegetable specimen's and 12 of each specimen (green beans, peas, lima beans, etc.)
 - D. Potatoes or cherry tomatoes may not be included
- If selected for State Fair: vegetable exhibits taken to state fair must contain six different vegetables or be an educational display.

Younger exhibitors may enter smaller vegetable exhibits, e.g., a small box with 3 different kinds of vegetables.

Exhibit Suggestions:

- Collection of three or more different vegetables, (use the guide above).
- Display showing three varieties of the same vegetable.
- Educational display showing some aspect of vegetable gardening (e.g., the difference in development between thinned vs. un-thinned vegetables).
- A mini garden planted in a tub, pail, or large planter.

✿ VETERINARY SCIENCE

- Veterinary Science - Grades 9+
- Veterinary Science - Grades 6-8
- Veterinary Science - Grades 3-5

Requirements:

-Exhibit may include models, diagrams, actual items and/or written articles, posters.

Exhibit Suggestions:

- Diagram of your favorite animal with anatomy
- Display or binder on diseases of animals, ringworm, heartworm, displaced abomasum, hip dysphasia, scours, etc.

✿ Science of Animals Educational Exhibits

Health

- Health Exhibit - Beef
- Health Exhibit - Dairy
- Health Exhibit – Goat - Dairy
- Health Exhibit – Goat - Meat
- Health Exhibit - Poultry
- Health Exhibit - Rabbits
- Health Exhibit – Sheep
- Health Exhibit – Swine

Breeding

- Breeding Exhibit - Beef
- Breeding Exhibit - Dairy
- Breeding Exhibit – Goat - Dairy
- Breeding Exhibit – Goat - Meat
- Breeding Exhibit - Poultry
- Breeding Exhibit - Rabbits
- Breeding Exhibit – Sheep
- Breeding Exhibit – Swine

Production

- Production Exhibit - Beef
- Production Exhibit - Dairy
- Production Exhibit – Goat - Dairy
- Production Exhibit – Goat - Meat
- Production Exhibit - Poultry
- Production Exhibit - Rabbits
- Production Exhibit – Sheep
- Production Exhibit – Swine

Other

- Other Exhibit - Beef
- Other Exhibit - Dairy
- Other Exhibit – Goat - Dairy
- Other Exhibit – Goat - Meat
- Other Exhibit - Poultry
- Other Exhibit - Rabbits
- Other Exhibit – Sheep
- Other Exhibit – Swine

Exhibit Suggestions:

- Items constructed (such as feeding systems or show equipment) or science exhibits focusing on one of the four divisions listed above.
- These projects may be enhanced with 3-dimensional displays, posters or notebooks

State Fair trips will be available. Exhibits will be judged during Livestock Weekend and 4-H'ers may exhibit both an animal and/or a Science of Animal Educational Exhibit.

✿ VIDEO / FILMMAKING

CHECK THIS OUT – Tips and suggestions from 4-H photography judges to prepare your 4-H photography/filmmaking exhibit and get ready for judging at your county fair, www.extension.umn.edu/youth/mn4-H/projects/arts-communication/photography/docs/photography-tips-suggestions-for-projects.pdf

- Video/Filmmaking - Grades 9+
- Video/Filmmaking - Grades 6-8
- Video/Filmmaking - Grades 3-5
- Video/Filmmaking – Production Team (2-3 members per team/can come from different schools and/or grades)
- 4-H Film Festival Individual
- 4-H Film Festival Production Team (2-3 members per team)

Equipment: video camera, digital camera, DSLR, time lapse camera or trail camera, cellphone, tablet, Go Pro, any electronic device capable of capturing a photographic image to be printed (i.e. video camera, DSLR, underwater camera, time lapse camera, cellphone, tablet, digital DSLR, Go Pro) or drone with attached camera (operator must meet age requirements to use a drone).

Requirements:

- All video/film footage exhibited must have been recorded/created in the current 4-H year. When appropriate, historical footage can be used, otherwise film/video content must have been taken in the current 4-H year.
- All video/filmmaking exhibits must be made by the exhibitor OR if the exhibit is made by a video/filmmaking production team, the exhibitor must be a member and must have created at least 50 percent of the finished video/film.
- Video/film must be presented on DVD, USB, flash drive or data CD
- Video/film must include a title and credits.
- The video/film must be original material, portions from other sources must be documented and have a copyright release, including music. Any video/film exhibit which appears to contain copyrighted material, including music, will not be publicly displayed unless the exhibitor has written permission from the producer to use the material in the video/film.
- The exhibitor's name, grade, club, and exhibit class must be clearly printed on all exhibit pieces.
- A computer with DVD player or USB port will NOT be provided for viewing the video/film during the conference judging. If equipment is needed for viewing, arrangements need to be made in advance.
- Video/film must be playable on Windows, use file format including .WMV, .FLV and .MPEG, .AVI, .MOV, .AVCHD, .MPEG-1, .MEG-4, as well as a playable DVD.
- This is not a slideshow (see Creative/Applied Photography for slideshow)

Exhibit Ideas:

Issue: Focus on the plight of pollinators and the tremendous decline in numbers. Include information of the suspected reasons for the decline and possible solutions.

- A poster that illustrates how a video/film camera works, or how to care for video/film equipment, illustration of computer video/film creation, etc.
- A video/film short-limited to 5 minutes or less (to insure full viewing by judge during judging process)
 - Showcase various video/film techniques.
 - A selected subject. Include a short storyboard or outline.
- A video/film made by blending computer technology and traditional camera created video/film.
- A video/film using data from trail camera or time lapse camera (stop action video) or drone with attached camera (operator must meet age requirements to use a drone).
- A video/film using Claymation or stop action
- 4-H Film Festival-this category is open to participants in this specially designed Video production program. Middle school aged youth are involved in an online experience to learn how to simulate the process a young filmmaker would go through as they produce a high-quality short film using their smartphone.

WATER / WETLANDS

Water/Wetlands - Grades 9+

Water/Wetlands - Grades 6-8

Water/Wetlands - Grades 3-5

Exhibit Suggestions:

- Display showing the five unique physical properties of water; the hydrologic or water cycle; 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, etc.

WILDLIFE BIOLOGY

Wildlife/Biology - Grades 9+

Wildlife/Biology - Grades 6-8

Wildlife/Biology - Grades 3-5

Exhibit Suggestions:

- Display showing the life cycle of your favorite wild animal.
- Birdhouse, birdfeeder, or homemade bird book of local birds.
- An animal book of wild animals of Minnesota--describe habitat, food, and shelter needs.
- A wildlife management plan--show practices related to land use and forest management for wildlife.
- Basic concepts of Wildlife Management (waterfowl wingboards, birdhouse trails, game food habits, game animal habitat requirements, history of game management, etc).

Youth Leadership - Grades 9+

Youth Leadership - Grades 6-8

Youth Leadership - Grades 3-5

Purpose:

Youth Leadership is a project area that requires the member to discover their skills and then develop those skills and share them with others. This might happen individually or with a group.

Guidelines:

Taking charge, leading a service project, and sharing the steps from beginning to end would be one example of a youth leadership project. Some ways to present your work would be (but are not limited to): three-sided display boards, scrapbooks, and posters.