Fair. Lego models may be constructed by any age 4-H member with judging based on complexity for age. Manufactures instruction sheets must be included with classes 902 to 906. If self-designed, please include assembly instructions and list of materials needed.

- H-865-901 Level 1 Model Building. Build a simple model that is a snap together type or a model that requires limited glue or paint. Use only the parts furnished in the kit except for Lego models. Use only plastic or wood models. Decals are optional. Members who are 8 -10 years old may use Lego or Lego type model kits or an original design from basic bricks. No model information sheet needed for this Level 1 class. No manufactures instruction sheets needed for this level.
- H-865-902 Level 2 Model Building. Build a model that requires glued assembly and exterior painting except for Lego models. Use only the parts that are furnished with the kit except for Lego models. Decals are required if furnished with the kit. Complete a model information sheet from 4-H manual and include it with your model. Manufactures instruction sheets must be included.
- H-865-903 Level 3 Model Building. Build a model that is more complex than the previous year. This model should be glued construction and must be painted on all surfaces other than chrome, glass, and tires except for Lego models. Decals are required if furnished with the kit. Complexity elements might include moving parts such as hood and doors, sail rigging on boats, detailed painting, and camouflage on airplanes. You may add parts not furnished with the kit. Complete a model information sheet from the 4-H manual and include it with your project. Manufactures instruction sheets must be included.
- H-865-904 Level 4 Model Building. Build a model that demonstrates a high degree of skill and accuracy or construct a self-designed model of plastic or wood. You may add parts that are not included with the kit such as self-designed parts or parts from another kit. Decals or custom graphics are required. Lego models are exempt from painting and decals but complexity and design elements must be appropriate for this level, Design plans must be included for all self-designed models. Note: wooden bridge models are appropriate as level 3 & 4 exhibits. Live steam models will not be fired. They will be judged on appearance and construction techniques. Complete a model information sheet from 4-H manual and include it with your model. Manufactures instruction sheet must be included.
- H-865-905 Diorama. Dioramas are allowed in Level 4 Model Building. A diorama consists of a model with a display theme around it. The overall diorama will be judged on accuracy of theme, appearance, construction, and audience appeal. Complete a model information sheet from 4-H manual and include it with your diorama model. If manufactures instruction sheets were used they must be included
- H-865-906 Radio Controlled Model. Radio controlled models are allowed in Level 4 Model Building. All radio controlled models are acceptable for this project. No preformed bodies or shells are allowed. Assembly of the body or shell is required. Transmitters and batteries are required but should be taken home after judging. No fuel is allowed in engine driven models. Complete a model information sheet from 4-H manual and include it with your model. Manufactures instruction sheet must be included.

# **DEPARTMENT H - STEM ROBOTICS**

Purple \$2.50, Blue \$2.50, Red \$2.00, White \$1.50

This category involves the many different aspects of Robotics. Participants will learn more about how robots are designed and developed as well as the mechanical and electronic elements of robots. Involvement in STEM Robotics gives participants a first-hand experience in modern technology.

## RULES:

- 1. The name and county of each exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks so owner of the exhibit may be identified if the entry tag is separated from the exhibit.
- 2. Each individual is limited to one exhibit per class.
- 3. Reports should be written using the scientific method whenever possible (Background, the Question or hypothesis, what you plan to do and what you did, Method used and observations, Results: what you learned.) All reports should be computer generated and enclosed in a clear plastic cover. The reports should be attached securely to the display.
- 4. Posters can be any size up to 28 by 22 inches when ready for display. Example: tri fold poster boards are not 28 by 22 inches when fully open for display.
- Scoresheets, forms and additional resources can be found at http://go.unl.edu/ne4hrobotics.

#### Division 861 - Robotics

Youth enrolled in Virtual Robotics, Junk Drawer Robotics (Levels 1, 2, or 3) Robotics Platforms may exhibit in any class within this division.

Team Entries: to qualify for entry at the Nebraska State Fair team materials entered in robotics classes that are clearly the work of a team instead of an individual must have at least 50% of all team members enrolled in 4-H. Additionally all enrolled 4-H members on the team should complete and attach an entry tag to the materials. A supplemental page documenting the individual contributions to the project should be included. The entry will be judged as a team, with all team members receiving the same ribbon placing.

Creating a video of your robot in action would be helpful for the judges but is not mandatory. Videos should be uploaded to a video streaming application and exhibitors should provide a hard copy QR code for viewing. State Fair qualified videos should be submitted to https://go.unl.edu/2024nesfset by August 10, 2024. Or videos can be uploaded to a video streaming application and exhibitors MUST provide a hard copy QR code for viewing. Exhibitors are encouraged to test their codes or links on several devices to check for appropriate permissions for public viewing.

- H-861-001 Robotics Poster Create a poster (28 x 22 inches) communicating a robotics theme such as "Robot or Not", "Pseudocode", "Real World Robots", "Careers in Robots", or "Autonomous Robotics", "Precision Agriculture" or robotic topic of interest to the 4-H'er. Scoresheet SF236
- H-861-002 Robotics Notebook Explore a robotics topic in-depth and present your findings in a notebook. Documentation should include any designs, research, notes, pseudocode, data tables or other evidence of the 4-H'ers learning experience. The notebook should contain at least three pages. Topics could include a programming challenge, programming skills, calibration, sensor exploration, or any of the topics suggested in Class 1. Scoresheet SF237
- H-861-004 Robotics/Careers Interview Interview someone who is working in the field of robotics and research the career in robotics. Interviews can either be written or in a multimedia format such as a short video uploaded to a cloud sharing service. Include a QR code with your project to allow for judging access. State Fair qualified videos should be submitted to https://go.unl.edu/2024nesfset by August 10, 2024. Or videos can be uploaded to a video streaming application and exhibitors MUST provide a hard copy QR code for viewing. Exhibitors are encouraged to test their codes or links on several devices to check for appropriate permissions for public viewing. Written reports should be 3 to 5 pages, double spaced, 12 point font, and 1 inch margins. Multimedia reports should be between 3 to 5 minutes in length. Scoresheet SF239
- H-861-005 Robotics Sensor Notebook Write pseudo code which includes at least three sensor activities. Include the code written and explain the code function. Codes can be submitted as a multimedia format uploaded to a cloud sharing service. Include a QR code with your project to allow judging access. Multimedia presentations should be 3 to 5 minutes in length. State Fair qualified videos should be submitted to https://go.unl.edu/2024nesfset by August 10, 2024. Videos can also be uploaded to a video streaming application and exhibitors MUST provide a hard copy QR code for viewing. Exhibitors are encouraged to test their codes or links on several devices to check for appropriate permissions for public viewing. Scoresheet SF241
- H-861-007 Kit Labeled Robot (cannot be FREE programmed) and Notebook This class is intended for explorations of robotic components such as arms or vehicles OR educational kits marketed as robots that do not have the ability to be programmed to "sense, plan, and act." The exhibit should include a notebook with the robot the youth has constructed. Included in the notebook should be (1) a description of what the robot does, (2) pictures of programs the robot can perform, (3) why they chose to build this particular form, and (4) how they problem solved any issues they might have had during the building and programming. A picture story of assembly is recommended. If robot is more than 15" inches wide and 20" inches tall they may not be displayed in locked cases at State Fair. Scoresheet SF243
- H-861-008 3D Printed Robotics Parts This class is intended for youth to create parts through 3D printing, that help create their robot or aid the robot in completing a coded function. Project should include notebook describing the process used to create the project, describe the success of your designed piece (did it work), intended use of the product and the modifications made to the item. Scoresheet SF244

# **DEPARTMENT H - STEM ELECTRICITY**

Purple \$2.50, Blue \$2.50, Red \$2.00, White \$1.50

In this category 4-H'ers have the opportunity to create informational exhibits about the different aspects of electricity. Through involvement in this category, 4-H'ers will be better educated about electricity and be able to present their knowledge to others.

## **RULES:**

- The name and county of each exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks so owner of the exhibit may be identified if the entry tag is separated from the exhibit.
- 2. Each individual is limited to one exhibit per class.
  - Several classes require a display board which should be a height of 24 inches and not to
    exceed 1/4-inch thickness. A height of 23 7/8 inches is acceptable to allow for the saw kerf
    (width) if two 24 in boards are cut from one end of a 4-foot by 8-foot sheet of plywood. Nothing
    should be mounted within 3/4 inch of the top or bottom of the board. (Example: Woodworking
    & Electricity.)
  - Fabricated board such as plywood, composition board, or particle-type lumber may be used for demonstration displays.
  - Demonstration boards should be sanded and finished to improve their appearance. The finish
    on a demonstration board will be judged as a woodworking exhibit.
  - Demonstration boards should include an overall title for the display, plus other necessary labeling.
  - Reports should be written using the scientific method whenever possible (Background, the Question or hypothesis, what you plan to do and what you did, Method used and observations, Results: what you learned.) All reports should be computer generated and enclosed in a clear plastic cover. The reports should be attached securely to the display.

Scoresheet, forms and additional resources can be found at https://go.unl.edu/ne4helectricity.

### Division 870 - Electricity

Refer to Engineering General Information.

# Magic of Electricity - Unit 1

- H-870-901 Bright Lights Create your own flashlight using items found around your house. Flash lights should be made out of items that could be recycled or reused. No kits please. Board can be any size up to 14 x 22 inches.
- H-870-902 Control the Flow Make a switch. Use the following items: D cell battery, battery holder, insulated wire, 2 or 2.5 volt light bulb, bulb holder, paper clip, cardboard, and two brass paper fasteners to create a circuit that you can open and close. Board can be any size up to 14 x 22 inches.
- H-870-903 Conducting Things Make circuit with a switch and a light bulb that can be used to test different household items for their ability to act as an insulator or conductor. You must find five items that are conductors and five items that are insulators. Create a table that illustrates your results. Board can be any size up to 14 x 22 inches.
- H-870-904 Is There a Fork in the Road Use the following items to construct one parallel and one series circuit. Items: D cell battery, battery holder, insulated wire, bulb holder and a 2 or 2.5 volt light bulb. Board can be any size up to 14 x 22 inches.

#### Investigating Electricity - Unit 2

- **H-870-905 Case of the Switching Circuit** Use the following items: two D cell batteries, two battery holders, light bulb, bulb holder, a 3 x 6 inch piece of cardboard, six brass paper fasteners, and approximately two feet of 24 gauge, insulated wire to build a three way switch. Write a short essay or create a poster that illustrates how three way switches function. Board can be any size up to 14 x 22 inches.
- H-870-906 The Off and On Case Build a momentary switch and use it to communicate in Morse Code. Board can be any size up to 14 x 22 inches.
- H-870-907 Stop the Crime Build an ALARM using the following materials: On-off push button switch, mercury switch, buzzer-vibrating or piezoelectric, 9-volt battery, 9-volt battery holder, 4 x 4 x 1/8 inches plexiglass board to mount circuit on; rosin core solder, soldering gun/iron, two feet of 22 gauge wire, wire strippers, hot glue sticks, hot glue gun and a plastic box with a lid to mount your alarm circuit on. Create a poster using photographs to show the "step by step process" you used to build your alarm. Board can be any size up to 14 x 22 inches.

### Wire for Power - Unit 3

- H-870-001 Electrical Tool/Supply Kit Create an electrical supply kit to be used for basic electrical repair around the house. Include a brief description of each item and its use. Container should be appropriate to hold items. Scoresheet SF224
- H-870-002 Lighting Comparison Display studying the efficiency of various lighting (incandescent,

- fluorescent, halogen, Light Emitting Diodes, etc.). Exhibit could be a poster display, or an actual item. Scoresheet SF225
- H-870-003 Electrical Display/Item Show an application of one of the concepts learned in the Wired for Power project. Examples include: re-wiring or building a lamp, re-wiring or making a heavy duty extension cord or developing an electrical diagram of a house. Exhibit could be a poster display or an actual item. Scoresheet SF226
- **H-870-004 Poster** Poster should exemplify one of the lessons learned in the Wired for Power Project. Posters can be any size up to 28 x 22 inches. Scoresheet SF227

#### **Entering Electronics - Unit 4**

- H-870-005 Electrical/Electronic Part Identification Display different parts used for electrical/ electronic work. Exhibit should show the part (either picture or actual item) and give a brief description, including symbol of each part and its function. Display should include a minimum of 10 different parts. Scoresheet SF228
- H-870-006 Electronic Display Show an application of one of the concepts learned in the Enterting Electronics project. Examples include: components of an electronic device (refer to pg. 35 of the Enterting Electronic manual). Scoresheet SF229
- H-870-007 Electronic Project Exhibit an electronic item designed by the 4-H'er or from a manufactured kit that shows the electronic expertise of the 4-H'er. Examples include: a radio, a computer, or a volt meter. Scoresheet SF230
- H-870-008 Poster Poster should exemplify one of the lessons learned in the Entering Electronics Project. Posters can be any size up to 28 x 22 inches. Scoresheet SF231

### **DEPARTMENT H - 4-WHEELIN'**

Purple \$2.50, Blue \$2.50, Red \$2.00, White \$1.50

#### Division 895 - 4-Wheelin'

H-895-901 4-Wheelin' Poster - Poster should exemplify one of the lessons learned in the 4-Wheelin' project. Posters can be any size up to 28 x 22 inches.

#### **DEPARTMENT H - STEM WOODWORKING**

Purple \$3.00, Blue \$3.00, Red \$2.50, White \$2.00

In this category 4-H'ers have the opportunity to create exhibits in varying levels of woodworking. In addition, participants can also create informational exhibits about their woodworking projects. Through involvement in STEM Woodworking, 4-H'ers will be better educated about the topic and better their woodworking skills.

# **RULES:**

- The name and county of each exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks so owner of the exhibit may be identified if the entry tag is separated from the exhibit.
- 2. Each individual is limited to one woodworking exhibit per class.
- 3. Requirements: All articles exhibited must include a plan (with drawings or sketch or blueprints) stating dimensions and other critical instructions a builder would need to know how to build the project, and 4-H'ers name and county. Plans may include narrative instructions in addition to the dimension drawings and include any alternations to the original plan. Part of the score depends on how well the project matches the plans. If the plans are modified, the changes from the original need to be noted on the plans. All plans used for making the article must be securely attached and protected by a clear plastic cover.
- 4. 4-H'ers must be in Unit 3 or Unit 4 for the exhibit to be considered for State Fair. All project must have an appropriate finish.
- If the project (i.e. picnic tables, wishing wells, swings, chairs, bridges, doghouses, etc.) is designed to be used outside, it will be displayed outside.
- 6. All outside projects MUST have entry tag and supporting information placed in a protective bag to prevent damage from weather events such as rain and be ATTACHED to projects with string, zip ties, etc.

Scoresheets, forms and additional resources can be found at https://unl.box.com/s/leyyacbdu3ktky0i58id6mvgya1tvcc5.

### Division 911 - Woodworking

Only one exhibit allowed per 4-H'er per class.

# Woodworking - Measuring Up - Unit I

H-911-901 Woodworking Article - Item made using skills learned in the Measuring Up Project Guide. Examples include: flower box, letter or napkin holder, picture frame or other skill level appropriate item. Item should be entered with construction plans.

### Woodworking - Making The Cut - Unit 2

H-911-902 Woodworking Article - Item made using skills learned in Making The Cut Project Guide. Examples include: napkin/letter holder, birdhouse, foot stool or other skill level appropriate item. Item should be entered with construction plans.

### Woodworking - Nailing It Together - Unit 3

- H-911-001 Woodworking Article Item should be made using either joints, hinges, dowels, or a dado joining made using skills learned in the Nailing It Together manual. Item is required to be appropriately finished. Examples include: bookcase, coffee table or end table. Item should be entered with construction plans. Scoresheet SF91
- H-911-003 Recycled Woodworking Display Article made from recycled, reclaimed or composite wood. Article must be appropriately finished and/or sealed and utilize one or more woodworking techniques from page 2 of the Unit 3 manual. Exhibit must include the woodworking plan and a minimum one page report of how the engineering design process was used to develop the woodworking plan.

## **Engineering Design Process**

- 1. State the problem (Why did you need this item?)
- Generate possible solutions (How have others solved the problem? What other alternatives or designs were considered?)
- Select a solution (How does your solution compare on the basis of cost, availability, and functionality?)
- 4. Build the item (What was your woodworking plan, and what processes did you use to build your item?)
- Reason for article finish (What type of finish, how did you finish or why you choose this finish?)
- 6. Evaluate (How does your item solve the original need?)
- 7. Present results (How would you do this better next time?) Scoresheet SF95
- H-911-004 Composite Wood Project 60% of the project must be wood and 40% made from other materials such as metal, rubber, resin, etc. All plans and plan alternations must be attached to the article. Protect plans with a cover. If project is designed to be outside it is required to have appropriate outdoor finish because project may be displayed outside. Scoresheet SF96
- H-911-005 Outdoor Wood Project made with Treated Wood Treated wood projects DO NOT have to have a finished coating. All plans and plan alternations must be attached to the article. Protect plans with a cover. If project is designed to be outside. Examples include: picnic tables, planters, outdoor furniture, etc. Scoresheet SF97
- H-911-006 Wood Projects created on a Turning Lathe Article is the object created from spinning wood on a turning lathe. Article must be appropriately finished and/or sealed. Exhibit must include plans detailing design and process of completion, any changes made to the design, details of finishing techniques, and other relevant information about the article. Must include a description of tools used. Items should be entered with construction plans. Scoresheet (SF)

## Woodworking - Finishing Up - Unit 4

- H-911-007 Woodworking Article Item made using skills learned in the Finishing It Up Project. Examples include: dovetailing, making a pen using lathe, overlays, using a router, etc. Item is required to be appropriately finished. Item should be entered with construction plans. Scoresheet SF91.
- H-911-008 Recycled Woodworking Display Article made from recycled, reclaimed or composite wood. Article must be appropriately finished and/or sealed and utilize one or more woodworking techniques from page 2 of the Unit 4 manual. Exhibit must include the woodworking plan and a minimum one page report of how the design and engineering process was used to develop the woodworking plan.
  - 1. State the problem (Why did you need this item?)
  - Generate possible solutions (How have others solved the problem? What other alternatives or designs were considered?)
  - Select a solution (How does your solution compare on the basis of cost, availability, and functionality?)

- 4. Reason for article finish (What type of finish, how do you finish or why you choose this finish?)
- 5. Build the item (What was your woodworking plan, and what processes did you use to build your item?)
- 6. Evaluate (How does your item solve the original need?)
- 7. Present results (How would you do this better next time?)

Scoresheet SF91

## **DEPARTMENT H - STEM WELDING**

Purple \$2.50, Blue \$2.50, Red \$2.00, White \$1.50

This category helps 4-H'ers learn the basics of welding. In addition, 4-H'ers get the opportunity to present their knowledge on the topic and display what they have made. Involvement in STEM Welding gives participants a first-hand experience in a skill that can be used for a lifetime.

#### **RULES:**

- The name and county of each exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks so owner of the exhibit may be identified if the entry tag is separated from the exhibit.
- 2. Each individual is limited to one exhibit per class.
- 3. All welds exhibited in class 1 or 2 must be mounted on a 12 inches high x 15 inches long display board of thickness not to exceed 3/8 inch. Attach each weld on a wire loop hinge or equivalent, so the judge can look at the bottom side of the weld when necessary. Each weld should be labeled with information stated 1) type of welding process (stick, MIG, TIG, Oxy-Acetylene, etc.) 2) kind of weld, 3) wedler setting, 4) electrode/wire/rod size and 5) electrode/wire/rod ID numbers. Attach a wire to display board so it can be hung like a picture frame. No picture frame hangers accepted.
- Fabricated board such as plywood, composition board, or particle-type lumber may be used for demonstration displays.
- Demonstration boards should be sanded and finished to improve their appearance. The finish on a demonstration board will be judged as a woodworking exhibit.
- 6. Reports should be written using the scientific method whenever possible (Background, the Question or hypothesis, what you plan to do and what you did, Method used and observations, Results: what you learned.) All reports should include 4-H'ers name and county, be computer generated and enclosed in a clear plastic cover. The reports should be attached securely to the display.
- If no plans are included with welding art, welding article, welding furniture, or composite weld project item will be disqualified.
- All outside projects MUST have entry tag and supporting information placed in a protective bag to prevent damage from weather events such as rain and be ATTACHED to projects with string, zin ties, etc.

Scoresheet, forms and additional resources can be found at http://go.unl.edu/ne4hwelding.

#### Division 920 - Welding

H-920-001 Welding Joints - A display of one butt, one lap and one fillet weld. Scoresheet SF281 4-H Welding Project Tips and Suggestions for class 1:

- 1. All welds should be made with the same electrode/wire/rod size and number.
- Welds should be made only on one side of metal so penetration can be judged.
- 3. Welds should be cleaned with chipping hammer and wire brush. Apply a coat of light oil (penetrating oil) to the metal to prevent rusting. Wipe off excess oil.
- 4. It is suggested that all welds be of the same size and thickness of metal. These pieces, referred to as coupons, should be 1.5 to 2 inches wide and 3.5 to 4 inches long. A good way to get this size is to buy a new cold rolled strap iron and cut it to length.
  - The extra width is needed to provide enough metal to absorb the heat from the welding process and prevent the coupons from becoming too hot before the bead is completed. Narrower coupons will become very hot, making an average welder setting too cold at the bead start, just about right in the middle, and too hot at the end. The correct way to weld narrow strips is to make short beads and allow time to cool, however this project requires a full-length bead.
- Stick welding: Suggested coupon thickness 1/4 inch if using 1/8 inch rod. Suggested rod-AC and DC straight or reverse polarity - first E-7014, second E-6013.
- MIG welding: Suggested coupon thickness 1/4 inch if using .035 wire and 1/8 inch if using .023 wire.
- 7. Oxy-Acetylene: Suggested coupon thickness 1/8 inch. Suggested rod 1/8 inch mild steel rod.

- H-920-002 Position Welds A display showing three beads welded in the vertical down, horizontal and overhead positions. Scoresheet SF281
  - 4-H Welding Project Tips and Suggestions for class 2:
  - 1. It is suggested that all welds be of the same size and thickness of metal. These pieces are referred to as coupons. The welds can be on one coupon that is about 4 x 4 inches or on individual coupons that are about 2 x 4 inches and 1/4 inch thick. Suggested rods for this class of position welds for AC and DC straight or reverse polarity is, first E-6013, second E-7014 and E-6010 for DC reverse polarity only.
  - Welds should be cleaned with a chipping hammer and wire brush. Apply a coat of light oil (penetrating oil) to the metal to prevent rusting. Wipe off excess oil.
- H-920-003 Welding Art (SF283) any art created using tack welds to hold the metal pieces together (examples include horseshoe projects). Type of welder, welder settings, all plans, plan alternations, and a bill for material must be attached to the article. Protect plans with a cover. If project is designed to be outside, it is required to have appropriate outdoor finish.
- H-920-004 Welding Article- Any shop article or piece of furniture where welding is used in the construction. 60% of the item must be completed by 4-H'er and notes regarding laser welding or machine welding must be included. Type of welder, welder settings, all plans, plan alternations, and a bill for material must be attached to the article. Protect plans with a cover. If project is designed to be outside it is required to have appropriate outdoor finish because project may be displayed outside. Scoresheet SF281 4-H Welding Project Tips and Suggestions for class 3:
  - All welds should be cleaned and protected from rust with paint or light oil. Plans are to be complete enough that if they were given to a welding shop, the item could be made without further instructions. Bill of materials should include a cost for all items used including steel, electrodes, paint, wheels, etc.
- H-920-005 Welding Furniture Any furniture with 75% welding is used in the construction. 60% of the item must be completed by 4-Her and notes regarding laser welding or machine welding must be included. Type of welder, welder settings, all plans, plan alternations, and a bill for material must be attached to the article. Protect plans with a cover. If project is designed to be outside it is required to have appropriate outdoor finish because project may be displayed outside. Scoresheet SF282 4-H Welding Project Tips and suggestions for class 4:
  - All welds should be cleaned and protected from rust with paint or light oil. Plans are to be complete enough that if they were given to a welding shop, the item could be made without further instructions. Bill for materials should include a cost for all items used including steel, electrodes, paint, wheels, etc.
- H-920-006 Plasma Cutter/Welder Design Plasma cutters/welders allowed for detailed design(s) to butt cut into metal. 4-Hers will create a notebook describing the design process to create the "artwork" to butt cut into the metal. In the notebook include: a) A photo (front and back) of the finished project, b) Instructions on how the design was created (include software used), this allows for replication of the project, c) Lessons learned or improvements to the project, d) Steps to finish the project. Scoresheet SF279
- H-920-007 Composite Weld Project 60% of the project must be welded and 40% made from other materials such as wood, rubber, etc. Type of welder, welder setting, all plans, plan alternations, and a bill for material must be attached to the article. Protect plans with a cover. If project is designed to be outside it is required to have an appropriate outdoor finish because project may be displayed outside. Scoresheet SF280

#### DEPARTMENT F - OTHER 4-H PROJECTS

Purple \$2.50, Blue \$2.50, Red \$2.00, White \$1.50

Division 902 - Other 4-H Projects: (this class is for other 4-H projects not listed)

F-902-001 An educational presentation on some aspect of the project. This exhibit may be presented in poster 14 x 22 inches, notebook, or display form. This class is for projects not listed.

### **DEPARTMENT F - CLOVER KIDS**

Premiums: Clover-Kid Participation Ribbon and \$2.00

#### Division 903 - Clover Kids (Age 5-8)

This class is for 4-H'ers who are enrolled in the Clover Kids 4-H program. Nebraska youth ages 5-7 years (by January 1 of the current year) may enroll in the Clover Kids Program. In other words, children turning 6, 7 or 8 during the calendar year are eligible for Clover Kids.

It is not the intent of the Nebraska Clover Kids program to duplicate the 8 to 19 year-old 4-H program, nor to create a "mini" 4-H concept. The Clover Kids program is designed with specific philosophies and educational objectives focused on youth ages 5-7. This program is designed to enhance the social development of the 5-7 year olds in a group setting with project activities organized by older youth and adults.

Youth enrolled in this program will be counted separately as a Clover Kids member. They will receive a completion certificate and a sticker for each year of participation in the program.

Clover Kids may sign-up for one (1) project. To show a Clover Kid bucket calf at fair, 4-H'er must be enrolled in the "Clover Kid Bucket Calf Project".

Nebraska 4-H recommends the use of appropriate and recommended Clover Kids curriculum. This curriculum utilizes age-appropriate, cooperative-based methods. It provides opportunities for learning through activities, emphasizing success for every child. Competition is inappropriate for this age level.

<u>Clover Kids may exhibit no more than three total items (that would include a bucket calf)</u>. Exhibitors are limited to **ONE EXHIBIT PER EXHIBIT NUMBER.** The 4-H'er's name, address and age should be on the back of each item.

F-903-001 Item completed from a Clover Kids activity.

F-903-002 Item completed from a Clover Kids activity.

F-903-003 Item completed from a Clover Kids activity.

F-903-004 Clover Kid bucket Calf Project - This non-competitive project has been designed for Clover Kid 4-H'ers (5-7 years of age as of January 1). The purpose of this project is to give Clover Kid 4-H'ers experience in caring and showing a bucket calf. Between January 1 and June 1, an orphan or newborn calf less than 2 weeks old and of either sex should be selected to be fed by bucket or bottle by the 4-Her. The calf may be dairy, beef, or a cross. 4-H'ers must own their bucket calf. No official 4-H tag or ID sheet is required. Any numbered eartag may be used. Calves will be shown in a rope halter. The calf should be cleaned and brushed. No fitting, clipping or show sticks. 4-H'ers will receive a Clover Kid participation ribbon and \$2.00 premium.

#### DEPARTMENT H - STATE FAIR PREMIER 4-H SCIENCE AWARD

The Premier 4-H Science Award Application is due August 1st in the Dawson County Extension Office.

#### H-101-001 State Fair Premier 4-H Science Award

**Objective:** Recognize 4-H youth static exhibits incorporating or demonstrating concepts from the areas of 4-H Science (science, technology, engineering, or applied math) at the Nebraska State Fair. Exhibits in all curriculum areas will be considered for the award.

Exhibit Entry: Youth will identify one exhibit to be considered for the Premier 4-H Science Award. The Premier 4-H Science Award <u>Application</u> must be submitted along with a <u>photograph of the exhibit</u> and any supplemental documents to the County Extension Office by the county's entry deadline (August 1st). The photograph will not be used for judging, only to locate it at the State Fair should we need additional information. The Extension Office will enter exhibit into its original State Fair class and the Premier 4-H Science Award class (H-101-01). Only one exhibit per youth will be eligible for the Premier 4-H Science Award.

**Check-In:** During static exhibit check-in at State Fair, Premier 4-H Science Award applications along with a photograph of the exhibit and supplemental documents will be dropped off at the Science, Engineering, and Technology Department area. The original exhibit will be dropped off to its department area.

**Judging:** Members of the 4-H Science work-group will serve as judges for the award. A scoresheet will be used to judge each exhibit. Exhibits which do not have a completed application or photograph can be disqualified at the discretion of the judge. Participants will be scored on how well they communicate their use of the Scientific Method or Engineering Design Process while completing their exhibit. An exhibit involving a science topic does not necessary qualify it to be the best choice for this award.

## Recognition:

- All projects entered in this class will be recognized with a certificate. No ribbons or premiums will be awarded. Exhibits will be displayed within their original class.
- Up to 3 top 4-H Science exhibits will be chosen from all curriculum areas and will receive a
  cash award sponsored by the Nebraska 4-H Foundation.

#### **SPECIAL 4-H AWARDS**

#### 4-H PUBLIC SPEAKING

Purple, Blue, Red and White ribbons will be awarded in the Dawson County Public Speaking Contest by state sponsor, KRVN. The Dawson County Banks will award \$10.00 to each 4-H Public Speaking Contestant. A radio goes to the top contestant in each of the three speech divisions, courtesy of county sponsor, KRVN. KRVN will present a radio to the top 4-H'er in each of these divisions: Senior 14 - 18 years old; Intermediate 11 - 13 years old; and Junior 8 - 10 years old. A 4-H member is limited to winning only one radio in the 8-13 year old groups. A Senior is limited to winning only one radio in the 8-13 year old groups. A Senior is limited to winning only one radio in the senior division. 4-H'ers may be a repeat county winner for the State Contest. Two \$10.00 bills, courtesy of the 4-H Foundation, will be presented to the two high individuals in the PSA (Public Service Announcement) category.

#### NEBRASKA 4-H CONFERENCES/CAMPS/EDUCATIONAL EVENTS

A Nebraska 4-H Conference/Camp trip registration will be provided to 4-H members in the following areas: Cozad area by Security First Bank; Gothenburg area by Landmark Implement, Inc.; Lexington & Overton area by Lexington Chamber of Commerce and Eddyville & Sumner area by Tubs Pub and Beattie Family.

These members will be selected by the 4-H Council in October from Award Application forms. The 4-H member must be 13 years old by January 1 the year of the trip. A 4-H member cannot receive one of these trips if they have been to Nebraska 4-H Conference/Camp before or 12 months after their graduation from high school.

## PRESENTATION CONTEST

The Dawson County Banks will award \$10.00 to each 4-H demonstrator in the county contest.

Dawson County Farm Bureau will provide a plaque to be exhibited in the 4-H building to the top Agriculture and top Family & Consumer Science 4-H Club at the Pre-Fair Presentation Contest. The club to be selected from their individual or team demonstrations based on P-4 points; B-3 points; R-2 points; W-1 point. 4-H members listed on the individual club enrollment sheet will constitute a club. Ties will be broken with the club which has the most purple or most blue ribbons.

## **FASHION SHOW FAIR DELEGATES**

Dawson County 4-H Foundation provides a Fashion Show plaque at the 4-H Building which will carry the names of the 4-H'ers selected to represent Dawson County at the Nebraska State Fair. These 4-H'ers will also receive appropriate individual trophies from Prairie Point Junction Quilt Shop, Cozad

#### **MEATS TEAM**

The Ben Menke family will provide an Alan Menke 4-H Memorial plaque to be exhibited in the 4-H Building to the high Meats Club team of three members in the county contest. The first, second and third high individuals in the Meats Contest will receive gold, silver, and bronze medals. Each club may enter one or more teams of four with the high three of the four making up the team score.

# LIVESTOCK JUDGING TEAMS

The Ben Menke family provides an Alan Menke 4-H Memorial plaque to be exhibited in the 4-H Building to the high senior and high junior livestock judging teams. Junior teams must be under 14 years of age January 1. Each club may enter one or more teams of four with the high three of the four making up the team score. The first, second and third high individuals in the junior and senior divisions will receive gold, silver and bronze medals.

# JACK REED MEMORIAL JUDGING

The family of Jack Reed will present trophies at the 4-H Achievement Barbecue to the top Dawson County junior and senior livestock judges and the top junior and senior meats judges. Winners will be selected from those 13 and under and those 14 and over, based on their ranking at the State contests held during the Premier Annual Science Event in Lincoln.

#### SHOWMANSHIP

SHOWINANSHIP	
Appropriate 4-H trophies are being provided the	e top showman by the following individuals or firms:
Junior Beef Showmanship	
Intermediate Beef Showmanship	
Senior Beef Showmanship	
Junior Dog Showmanship	
Intermediate Dog Showmanship	The Hosick Family
Senior Dog Showmanship	
Junior Feeder Calf Showmanship	Farm Credit Services
Intermediate Feeder Calf Showmanship	Alan Hueftle Family
Senior Feeder Calf Showmanship	Daryl Keiser Family
Junior Horse Showmanship	2 Bar H Café
Intermediate Horse Showmanship	B&B Veterinary Services
Senior Horse Showmanship	Platte Valley Quarter Horse Assoc.
Junior Sheep Showmanship	Kent Young Family
Intermediate Sheep Showmanship	Bruce & Julie Rickertsen Family
Senior Sheep Showmanship	Keith White Family
Junior Swine Showmanship	The Hosick Family
Intermediate Swine Showmanship	Dawson County Farm Bureau
Senior Swine Showmanship	PM Farms
Junior Rabbit Showmanship	Country Partners Cooperative
Intermediate Rabbit Showmanship	Herb Teter
Senior Rabbit Showmanship	Titan Machinery, Inc.
Junior Dairy Goat Showmanship	Milk House
Intermediate Dairy Goat Showmanship	Laird Feed
Senior Dairy Goat Showmanship	Milk House
Junior Poultry Showmanship	Barb & Don Batie Family
Intermediate Poultry Showmanship	Barb & Don Batie Family
Senior Poultry Showmanship	Barb & Don Batie Family
Junior Meat Goat Showmanship	Patton Ag, Etc.
Intermediate Meat Goat Showmanship	Lexington Feeders Service
Senior Meat Goat Showmanship	Clay Patton, Auctioneer - Marshall Land Brokers
Junior Cat Showmanship	Russman's JK Livestock
Intermediate Cat Showmanship	Cozad Veterinary Clinic
Senior Cat Showmanship	Laird Feed
Junior Dairy Cow Showmanship	Wood River Dairy
Intermediate Dairy Cow Showmanship	Wood River Dairy

**Showmanship:** The names of Showmanship winners are recorded on showmanship plaques displayed in the 4-H Building. Plaque sponsors are the Hosick Family of Cozad and All Points Cooperative.

**Herdsmanship:** The names of the 4-H clubs who are the winners of Herdsmanship will be recorded on a plaque displayed in the 4-H Building. The Dawson County Agricultural Society sponsors the plaque.

## **CLUB GROUP OF FIVE FEEDER CALVES**

The Wade Family provides a plaque in memory of Lowell and Dennis Wade to be exhibited in the 4-H Building to the top group of Five Feeder Calves from one club.

#### DAWSON COUNTY SPARE RIB CLUB

The Spare Rib Club provides a plaque to be exhibited in the 4-H Building to the top club of five Market Hogs from one club.

## DAWSON COUNTY SHEEP & WOOL ASSOCIATION

The Sheep & Wool Association provides a plaque to be exhibited in the 4-H Building to the top club group of five market lambs from one club.

### DAWSON COUNTY CATTLEMEN

The Cattlemen provides a plaque to be exhibited in the 4-H Building to the top club group of five market calves from one club. The Cattlemen awards \$400.00 to the State Champion 4-H Livestock Judging Team and/or the State Championship 4-H Meats Judging & Identification Team and/or Animal Science Quiz Bowl team if from Dawson County to help defray training expenses for a national contest.