

DEPARTMENT C -- HOME ENVIRONMENT

GENERAL INFORMATION FOR HOME ENVIRONMENT PROJECT...4-H'ers may exhibit only in the project in which enrolled. Each individual is limited to one exhibit per entry number.

HOME ENVIRONMENT EXHIBITS are evaluated by these criteria:

- 1) Items must be designed to be used for home decorating or home furnishing (no clothing, purses, note cards, scrapbooks/photo albums, etc.)
- 2) Accessories should be of high quality (as compared to quick, simple crafts like dryer vent pumpkins and tied fleece blankets), ones that are suitable for use in the home several months throughout the year.
- 3) Items should show creativity and originality, along with the application of design principles and elements. (Ask yourself: How have I shown creativity and applied the design principles and elements in this accessory?)
- 4) Items should be ready for display in the home (pictures framed, wall hangings and pictures ready to hang, etc.).

Sending delicate, breakable, or valuable items is highly discouraged.

An entry tag which includes a clear description of the entry must be securely attached to each Home Environment exhibit. Use color names or pattern/picture descriptions to aid in identification.

IDENTIFICATION - In addition to the entry tag, a label with the exhibitor's name and county should be attached to each separate piece of the exhibit.

SUPPORTING INFORMATION - Supporting information is required for these projects: Design Decisions, class 5 quilted bedcover (state who did the piecing and quilting), Furnishings On a Shoestring (include amount spent and estimated savings), Heirloom Treasures (include list of steps taken to complete project and Family Keepsakes documentation), Sketchbook Crossroads, classes 1,2, & 8 and Portfolio Pathways, classes 1,2,3,4,5, & 6. Optional: If a 4-H'er has used unusual or complicated techniques to create their exhibit, a written description would be helpful for the judge. (Write up to one half of an 8 1/2" x 11" sheet and attach to the exhibit.) This is especially important if you would like to have your exhibit considered for the Celebration of Youth (a special exhibit selected for the The Robert Hillestad Textile Gallery).

Division 260 -- Sketchbook Crossroads

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

- C-260-1 Original pencil drawing based on techniques learned in Unit 1 of Sketchbook Crossroads, framed and ready to hang; attach description of techniques used) (Crossroads pgs. 10-21)
- C-260-2 Original ink drawing based on techniques learned in Unit 1 of Sketchbook Crossroads, framed and ready to hang; attach description of techniques used) (Crossroads pgs. 22-28)
- C-260-3 Home accessory made with felted wool (Crossroads pgs. 29-33)
- C-260-4 Home accessory made with cotton linter (Crossroads pgs. 34-36)
- C-260-5 Home accessory using batik (Crossroads pgs. 37-39)
- C-260-6 Home accessory made by weaving on a loom (Crossroads pgs. 40-47)
- C-260-7 Home accessory made with fabric exhibitor has dyed (Crossroads pgs. 48-50)
- C-260-8 Home accessory using quilt design from another culture (attach description of culture and history of design) (Crossroads pgs. 51-52)
- C-260-9 Original sculpted home accessory made with clay (no purchased pots) (Crossroads pgs. 53-62)
- C-260-10 Recycle: home accessory made with boxes or sculpted cardboard (Crossroads pgs. 63-66)
- C-260-11 Home accessory carved from Plaster of Paris (Crossroads pgs 69-70)

Division 261 - Portfolio Pathways

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

- C-261-1 Original acrylic painting based on techniques learned in Unit 1 of Portfolio Pathways, framed and ready to hang; attach description of techniques used) (Pathways pgs. 10-35)
- C-261-2 Original oil painting based on techniques learned in Unit 1 of Portfolio Pathways, framed and ready to hang; attach description of techniques used) (Pathways pgs. 10-35)
- C-261-3 Original watercolor based on techniques learned in Unit 1 of Portfolio Pathways, framed and ready to hang; attach description of techniques used) (Pathways pgs. 10-35)
- C-261-4 Original sand painting based on techniques learned in Unit 1 of Portfolio Pathways, framed and ready to hang; attach description of techniques used) (Pathways pgs. 10-35).
- C-261-5 Original encaustic painting based on techniques learned in Unit 1 of Portfolio Pathways, framed and ready to hang; attach description of techniques used) (Pathways pgs. 10-35)
- C-261-6 Home accessory made with any printing technique in Pathways Unit II; attach description of technique used (Pathways pgs. 36-56)
- C-261-7 Art portfolio on CD/DVD. Scan examples from any of your "Sketchbook or Portfolio Entries" and at least 3 illustrations how design elements or principles can be used in home decorating. Include CD/DVD label and booklet OR case cover designed by exhibitor. (Unit 3, Portfolio Pathways, pgs. 57-75)

Division 251 -- Home Building Blocks

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

- C-251-1 Needlework Item. Item for room or home.

C-251-2 Nine-Patch Design Of Wood, Fabric Or Paper - Item for room or home.

C-251-3 Batik - Batik may be a 1-color batik; multi-color; quilted batik; combination of tie and dye and batik; or nine patch design and batik. Item for room or home.

C-251-4 Metal Tooling or Metal Punch - Item for room or home.

Division 255 -- Furnishing On A Shoestring

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

Include information on the amount of money spent to make the item and estimated savings.

C-255-1 A Low Cost Article ... made or finished by the member that solved a home environment problem by using a common object or material in a creative way. Could be made from reused or recycled products.

C-255-2 A Low Cost Piece of Furniture ... made or finished by the member that solved a home environment problem by using a common object or material in a creative way.

Division 256 -- Heirloom Treasures/Family Keepsakes

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

Exhibit only items for the home. Include a sheet including this information:

1. List of steps taken to complete your project. Before and after pictures encouraged.
2. Keepsakes documentation: how you acquired the item and the history of the item - may be written, pictures, audio or video tape of interview with family member, etc.

C-256-1 Trunks, including doll-sized trunks or wardrobes.

C-256-2 An Article. Either a newly-made "treasure" (accessory) from an old item or an old "treasure" (accessory) refinished or renovated. May include a display of a collection or collectibles, being careful not to destroy value of the collection.

C-256-3 Furniture. Either a newly-made "treasure" from an old item or an old "treasure" refinished or renovated. May include doll-sized furniture.

C-256-4 Cleaned & Restored Heirloom or Old Furniture or Accessory. A reconditioned and cleaned old piece of furniture or accessory that is functional for use or display. Item might be cleaned and waxed, and simple repairs made. Item would not have to be refinished or repainted, but reconditioned to restore it to its original look or to prevent it from further damage as a valuable heirloom. This class is for situations where it may be best to do very little to the item to maintain its antique value. Consult Extension Publication RP272 Family Keepsakes for information. Item or article should be of complexity suited to an advanced project. (Refinished items go in classes 2 and 3.)

Division 257 -- Design Decisions

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

C-257-1 Design Board for a Room. Include color scheme, wall treatment, floor treatment, etc. OR floor plan for a room - Posters, 22" x 28". Show what you learned with before and after pictures or diagrams, samples, story, cost comparisons, optional arrangements, etc.

C-257-2 Window Covering - May include curtains, draperies, shades, shutters, etc.

C-257-3 Wood Furniture - Opaque finish such as paint or enamel OR clear finish showing wood grain.

C-257-4 Fabric Covered Furniture - May include stool, chair seat, slip-covers, headboard, etc.

C-257-5 Bedcover - May include quilt, comforter, bedspread, dust ruffle, pillow sham, canopy, etc. For quilts, state who did the piecing or quilting (no tied fleece blankets).

C-257-6 Other Fabric Accessory - Pillow (not from Sewing for Fun), table cloth or runner, dresser scarf, etc. (No tied fleece blankets.)

C-257-7 Framed Picture - Item is made by 4-H members and stretched, matted, and/or framed by the 4-H'er. Item is judged for workmanship and wise application of art elements and design principles in both the picture and frame.

C-257-8 Wall Hanging - 2 or 3 dimensional

C-257-9 3-Dimensional Surface Accessory made by 4-H'er that will set on table, dresser or floor. (Indoor use only.)

C-257-10 Recycled or Remade Item for the Room.

C-257-11 Floor covering - May be woven, braided, painted floor cloth, etc.

C-257-12 Problem Solved - Identify a problem (as problem windows, storage needs, inconvenient room arrangement, etc.) Using poster, notebook or other method, describe the problem and how it was solved.

C-257-13 Energy Savers - poster, notebook or other method illustrating a home energy audit, landscape design to save energy, water savings, etc.

C-257-14 Home Miniatures - Illustrate design skills learned by decorating a 1-2 rooms in a doll house (project can continue in following years) OR design a model energy-efficient home. Include brief description of what was learned.

C-257-15 Cost Comparisons - Illustrate comparison shopping and selection criteria for item needed in room (ex: wall or floor coverings, storage, furniture, etc.)

C-257-16 Outdoor Living - Accessory or furniture made/refurbished by 4-H member suitable for outdoor use.

C-257-17 Community Service Activity - Show what was done as a community service activity related to this project. In a notebook, photo story, or poster, show the purpose and results of that activity. Example: painting a mural at a daycare or 4-H building, helping an elderly person paint or clean their home, etc. May be an individual or club activity. Non-competitive. Special recognition certificates will be awarded to participants.

DEPARTMENT C - QUILT QUEST

Division 229 - Quilt Quest

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

A quilted exhibit is made up of at least 3 layers. Quilts or quilted items must be quilted or tied through all layers. No fleece blankets, please. Items in classes 50-83 should have a card attached to the lower left corner of the back of the quilt with quilt maker, date and answers to the following questions: a. Describe how you selected the design and fabrics used for your project. b. Tell what you did and what was done by others. c. Tell what you learned that you can use on your next project.

C-229-10 Exploring Quilts - Illustrate some aspect of quilts or quilt making. Examples include, but are not limited to, language arts, quilts of different cultures, chemistry, design, preservation, history, construction, math conversion of quilt patterns, textiles/fabrics, computerization, entrepreneurship. History may include history of an old quilt or history/research of a particular style of quilt (such as Baltimore album quilts, Amish quilts, other). Exhibit may include a 14"x22" poster, notebook, CD, PowerPoint, VCR tape, or other technique. All items in an exhibit must be attached together and labeled.

C-229-20 Quilted Designs Other Than Fabric. Two or three dimensional item with quilt design made using medium other than fabric, such as wooden quilt block, stained glass, paper, etc.

C-229-30 Computer Exploration. Poster or notebook with a minimum of six computer generated quilt designs or color variations on a quilt design. Include information of type of program used, process used to generate designs, or how you used color to create different quilt designs. Size of poster or notebook - suitable for the exhibit.

C-229-40 Wearable Art - Quilted clothing or garment. Must have a recognizable amount of quilting. May include fabric manipulation. Quilting must be done by 4-H'er. Attach card.

Guidelines for entries in classes 50-83

Please note the description of classes. They denote degree of difficulty in construction and not the number of years in the project.

All quilted exhibits must be clean and finished for intended purpose. A quilted exhibit consists of 3 or more layers. All quilted exhibits must be quilted (machine or hand) or tied. All quilt piecing and finishing must be the sole work of the current 4-H member. Quilting, whether machine or hand quilted, may be done by another individual except for the premier quilt class. No pre-quilted fabric may be used. Wall quilts must have a hanging sleeve on the back of the quilt, or some method for hanging. All quilted exhibits must have a permanent label on the back in the bottom right corner with quilter's name and date of completion.

Quilted exhibit sizes

a. Small - maximum length + width = 60" This class includes miniature quilts, wall hangings, table runners, four placemats, pillow, etc.

b. Medium - maximum length + width = from 61" to 120"

c. Large - length + width over 120"

Level I quilted exhibits - Pieced quilts are made up of squares and/or rectangles. Attach card.

C-229-50 Small

C-229-51 Medium

C-229-52 Large

Level II quilted exhibits - In addition to squares or rectangles, quilts may have triangles, and/or may be embroidered. Attach card.

C-229-60 Small

C-229-61 Medium

C-229-62 Large

Level III quilted exhibits - In addition to any of the methods in classes 50 or 62, quilts may have curved piecing, applique, Celtic style, stained glass style, paper piecing, art quilt style, or other non-traditional styles. Attach card.

C-229-70 Small

C-229-71 Medium

C-229-72 Large

Premiere Quilt - Entire quilt is the sole work of the 4-H'er, including quilting (hand or machine). No tied quilts in this class. Attach card.

C-229-80 Hand quilted

C-229-81 Sewing machine quilted

C-229-82 Long arm quilted - non computerized/hand guided

C-229-83 Long arm quilted - computerized

DEPARTMENT F – ENTREPRENEURSHIP

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

General Information - All exhibits are directly related to activities in the project manual. Refer to the manual for ideas, suggestions and additional information to enhance project exhibits.

Exhibit Guidelines - Posters must be 14" x 22" and may be arranged either horizontally or vertically.

The 4-H member's name, age, full address and county must be listed on the back of the poster. Entry cards should be paper-clipped to the upper right-hand corner of the poster.

Poster may not use copyrighted materials, such as cartoon characters or commercial product names. Exhibits which do not conform to size or content guidelines will be lowered one ribbon placing. Posters may include photographs, charts or

examples as well as a written explanation.

Poster may be laminated to protect them. Loose plastic coverings used to protect the exhibit while being transported will be removed by the superintendent for evaluation and display.

Division 530 – Business Sense

For classes 1-3, follow guidelines for posters.

F-530-1 Interview an entrepreneur. Share what you learned from the person about starting and running a business or how they deliver excellent customer service. How will what you have learned through this interview change your future plans or ways of thinking about business.

F-530-2 Picture story of 1) tour or field trip to study entrepreneurship and/or business operation; or 2) steps required to make a selected product or deliver a specific service.

F-530-3 Market study you could use to determine if a product or service would sell in the targeted market area.

F-530-4 A folder containing the following information: 1) at least one completed chapter of the project manual Business Sense, and 2) a minimum of three additional forms the 4-H'er has used/developed to start/operate a business (i.e., application for sales tax number, registering business name, food inspection, kitchen inspection, copyright forms, billing forms, accounting system, business plan, receipts, production record, etc.)

F-530-5 A folder containing critiques of WEB pages of at least three businesses.

F-530-6 Marketing Package (mounted on a 14" x 22" poster) must include at least three items (examples) developed by the 4-H'er from the following list: business card, brochure, advertisement, business promotional piece, printout of an internet home page, packaging design, signs, logo design, direct mail piece, etc. The marketing package should be for an original business developed by the 4-H'er and not on an existing business.

F-530-7 Original Product with an information card (8 1/2" x 11") answering the following questions:

1. What did you enjoy the most about making the product?
2. What challenges did you have when making the product? Would you do anything differently next time? If so, what?
3. What is the suggested retail price of the product? How did you decide on the price?
4. How much would you earn per hour? Show how you determined the figure.
5. What is unique about this product?

A series of market survey questions will be available for the public to provide feedback to the 4-H'er regarding quality, originality, market appeal, price, etc. of product entered in Class 7.

Division 531 - ESI: Entrepreneurship Investigation

ESI Unit 1 Discover the E-Scene

F-531-1 Interview an entrepreneur - Share what you learned from the person about starting and running a business or how they deliver excellent customer service. How will what you have learned through this interview change your future plans or ways of thinking about business? (Based on pages 2.1 - 2.4 of manual)

F-531-2 Picture story of a tour or field trip to study entrepreneurship and/or business operation . (Based on pages 2.1 - 2.4 of manual)

ESI Unit 2 The Case of ME

F-531-3 Investigating the Sale - You could use to determine if a product or service would sell in the targeted market area. (Based on pages 5.1 - 5.5)

F-531-4 Mapping and Planning Together - In a notebook, develop a plan for your Amazon trip. You may want to visit trip planning Web sites to plan travel, lodging and sights to visit. (Based on pages 7.1 - 7.4)

ESI Unit 3 Your Business Inspection

F-531-5 Marketing Package - (mounted on a 14" x 22" poster) must include at least three items (examples) developed by the 4-H'er from the following list business card, brochure, advertisement, business promotional piece, printout of an internet home page, packaging design, signs, logo design, direct mail piece, etc. The marketing package should be for an original business developed by the 4-H'er and not an existing business.

F-531-6 Original Product with an information card (8 1/2" x 11") answering the following questions:

1. What did you enjoy the most about making the product?
2. What challenges did you have when making the product? Would you do anything differently next time? If so, what?
3. What is the suggested retail price of the product? How did you decide on the price?
4. How much would you earn per hour? Show how you determined this figure. What is unique about this product?

ESI Unit 1, 2 or 3

F-531-7 A folder containing the following information: 1) at least one completed chapter of the project manual ESI Unit 1, 2 or 3; and 2) a minimum of three additional forms the 4-H'er has used/developed to start/operate a business (i.e., application for sales tax number, registering business name, food inspection, kitchen inspection, copyright forms, billing forms, accounting system, business plan, receipts, production record, etc.)

DEPARTMENT B -- PHOTOGRAPHY

4-H'ers may visit with the judge on Wednesday, July 16, at 1:15 p.m. about their photography entries.

GUIDELINE RULES

- A. Youth in 4-H Photography Units 2 & 3 will be allowed to exhibit at the State Fair.
- B. 4-H'ers are allowed entries in only one unit of competition.
- C. Entry Tags: Entry tag must be paper clipped in the upper right-hand corner of displays or prints.
- D. A photograph may only be used on one exhibit and may be taken with a film or digital camera.
- E. Photos must be shot during their current project year by the 4-H member.
- F. Securely attach photos, rubber cement preferred.
- G. Do not use photo corners, borders or place coverings over the exhibits. Do not include negatives.
- H. **Personal Data Tag** - Required on all classes. Glue securely to back of exhibits or include as page one in photo journal. Photo journal only require part A of the tag, all prints and displays will require both A and B.

Personal Data Tag: Part A

Name: _____ Age: _____ County: _____

Unit _____ Class: _____

Film Speed (ISO or ASA) Setting: _____

Camera Description: _____ (digital/film, fixed/auto/SLR)

Filter Used (if any) _____ (ex. color, screen, etc.)

Special Lens Used (if any) _____

Focus Type _____ (Automatic, Manual, Fixed)

Aperture Type _____ (Adjustable, Non-Adjustable)

Shutter Speed _____ (Adjustable, Non-Adjustable)

Personal Data Tag: Part B

Answer the following questions:

1) What is the intended purpose of the photo, 2) how the photo was taken and printed (describe equipment and software used), 3) what type of paper the image is printed on, and 3) describe any changes made to the picture using computer software.

- I. Exhibits not following these rules will be dropped one ribbon placing.
- J. STATE FAIR SPECIAL DISPLAYS SELECTION: Photos will be selected from state fair print entries that depict Nebraska for an Extension Office Display. This exhibit will be on display in the Dean's Office on UNL's East Campus.

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

Division 181 -- Focus on Photography - Unit 1 Guidelines

A. Unit 1 Picture Displays:

- Three 4x6 photos mounted on a single horizontal 11" x 14" black (preferred) or white poster or matting board.
- Every photo on picture display must be pencil numbered (no. 2 lead pencil) below (for judge's reference only). Numbers should be readable but not detract from display.
- No titles, captions, or stick-on numbers will be allowed.
- Photos must be mounted vertically or horizontally.
- Personal Data Tags (Parts A and B) are required (See General Rule H).

B. Unit 1 Photo Journal:

- Choose project area 1, 2, 3 or 4 in the Level 1 project manual titled "Focus on Photography"
- Complete the pages associated with the project area of your choice (project 1, 2, 3 or 4) or recreate and print the pages (still using actual photos).
- Place pages in an 8 ½ x 11 black or white 3 ring binder.
- Personal Data Tags are required (See General Rule H). For your journal complete Part A only and include this as page one of your journal.

Unit 1 Classes

- B-180-10 Photo Journal - An entry will consist of a single completed and bound section of project 1, 2, 3 or 4 in the level 1 project manual titled "Focus on Photography".
- B-180-20 Photo Story Display - Entry will consist of a display of 3 photos that tell the beginning, middle and end of a story.
- B-180-30 Fun with Shadows Display: Entry will consist of 3 pictures of 3 different subjects that capture the image of the shadow.
- B-180-40 Magic and Tricks Display: Entry will consist of a display of 3 pictures of 3 different subjects that use a "special effect" to create interesting photos.

Division 181 -- Controlling the Image - Unit 2 Guidelines

A. Unit 2 Picture Displays:

- Three 4x6 photos mounted on a single horizontal 11" x 14" black (preferred) or white poster or matting board.
- Every photo on picture display must be pencil numbered (no. 2 lead pencil) below (for judge's reference only). Numbers should be readable but not detract from display.
- No titles, captions, or stick-on numbers will be allowed.
- Photos must be mounted vertically or horizontally.
- Personal Data Tags (parts A and B) are required (See General Rule H).

B. Unit 2 Exhibit Prints:

- All exhibit prints are 8" x 10" prints mounted in 11" x 14" (outside size) cut matting (no frames) with a sandwich mat board backing; rectangular or oval inside mat opening or 5" x 7" print mounting in 8" x 10 (outside size) cut matting (no frames) with a sandwich mat board backing; rectangular or oval inside mat opening..
- Place photos horizontally or vertically as appropriate.
- Personal Photo Data Tags (parts A and B) are required. (See General Rule H.)

C. Unit 2 Photo Journal:

- Choose project 1, 2, 3 or 4 in the level project manual titled "Controlling the Image"
- Complete the pages associated with the project of your choice (project 1, 2, 3 or 4)
- Place pages in an 8 ½ x 11 black or white 3 ring binder.
- Personal Data Tags are required (See General Rule H). For your journal complete Part A only and include this as page one of your journal.

Unit 2 Classes

- B-181-10 Photo Journal - An entry will consist of a single completed and bound section of project 1, 2, 3 or 4 in the level 2 project manual titled "Controlling the Image".
- B-181-20 Lighting Display or Exhibit print - Entry will consist of a display of 3 pictures of 3 different subjects or an exhibit print that demonstrates lighting effects.
- B-181-30 Composition Display - Entry will consist of 3 photos illustrating 3 different views of the same object.
- B-181-40 Composition Exhibit Print - Entry will consist of a candid print that captures an un-posed moment and illustrates the emotion of the event.
- B-181-50 Action Display or Exhibit Print - Entry will consist of a display of 3 pictures of 3 different subjects or an exhibit print that captures motion and represents the action in the photo.
- B-181-60 Nebraska Theme Exhibit Print - The Unit 2 theme is "Celebrating Citizenship". Exhibit prints must portray Nebraska.

Division 182 -- Mastering Photography - Unit 3 Guidelines

A. Unit 3 Exhibit Prints:

- All exhibit prints are 8" x 10" prints mounted in 11" x 14" (outside size) cut matting (no frames) with a sandwich mat board backing; rectangular or oval inside matt opening or 5"x7" prints mounted in 8"x10" (outside size cut matting (no frames) with a sandwich backing; rectangular or oval inside mat opening.
- Place photos horizontally or vertically as appropriate.
- Personal Photo Data Tags (parts A and B) are required. (See General Rule H.)

B. Unit 3 Photo Journal

- Choose project 1, 2, 3 or 4 in the Level project manual titled "Mastering Photography".
- Complete the pages associated with the project of your choice (project 1, 2, 3 or 4)
- Place pages in an 8 ½ x 11 black or white 3 ring binder.
- Personal Data Tags are required (See General rule H). For your journal complete Part A only and include this as page one of your journal.

Unit 3 Classes

- B-182-10 Photo Journal - An entry will consist of a single completed and bound section of project 1, 2, 3 or 4 in the level 3 project manual titled "Mastering Photography"
- B-182-20 Advanced Lighting Exhibit Print: Entry will consist of a print that illustrates reflection.
- B-182-30 Mastering Composition Exhibit Print - Entry will consist of a print that illustrates interesting shapes, patterns or textures.
- B-182-40 Portrait Exhibit Print - Entry will consist of a print that captures both physical characteristics and personality in their subjects.
- B-182-50 Detailed Exhibit Print - Entry will consist of a print that focuses on the details. Illustrate lighting technique and depth of field and showcase the details.
- B-182-60 Challenging Exhibit Print - Entry will consist of a print that illustrates a special effect: 1) Double Exposure, 2) Light Painting, 3) Flash Multiple Exposure, 4) Filters, 5) Night time Exposure, 6) Zooming (to create the effects of motion in your photo), 7) Digitally altered photos, 8) Other technique not listed.
- B-182-70 Nebraska Theme Exhibit Print: The Unit 3 theme is "Go for Gold". Exhibit prints must portray Nebraska.

DEPARTMENT D -- ENVIRONMENTAL & EARTH SCIENCES (FORESTRY)

Division 320 -- Forestry

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

The official reference for all forestry projects is "Tree Identification Manual" (4-H 332). Other helpful forestry references include Trees of Nebraska (EC 92-1774-X), Leafing Out (4-H 431), and Plant a Tree (EC 17-11-80).

Display "boards" must be made from wood or wood composite, e.g., plywood, fiberboard or masonite, 1/4" to 1/2" thick and no larger than 24" x 24". Display boards may be coated, e.g. painted or varnished on both sides, to prevent warping.

Display "posters" must be made from a material, e.g. foam board or posterboard that will stand upright without buckling and be no more than 24" x 24".

Display "books" must measure no more than 16" x 16".

At least 5 of the 10 samples in Class 2, 3, 4, and 6 exhibits must be from the list of 60 species described in 4-H 332. If more than 10 samples are included in a display, only the first 10 samples of the current year will be judged. All samples must be from trees, no shrubs. The 10 samples to be judged must be from 10 different species, e.g. Emerald Queen Maple and Crimson King Maple are both Norway Maples

Remember that other general labeling standards apply, i.e. scientific names are always italicized or underlined. When required, always indicate complete scientific names and common names, even when "variety names" are included. For example, the scientific name of Emerald Queen Maple is *Acer platanoides* and the common name is Norway Maple. "Emerald Queen" may be included as the variety name, but variety names are not required.

Refer to the Tree Identification Manual (4-H 332) for detailed instructions of all forestry projects (except "Living Tree Display" described below). Leaf Print Display and Champion Tree Display were both deleted in 2008.

D-320-1 Design-Your-Own Exhibit

D-320-2 Leaf Display

D-320-3 Twig Display

D-320-4 Seed and Fruit Display

D-320-6 Wood Identification Display

D-320-8 Cross Section of a Tree - The diagram in the Tree Identification Manual (4-H 332, page 8) is incorrect. Please consult *Trees of Nebraska* (EC92-1774-X), or other references or Extension Office for correct labeling information.

D-320-9 Parts of a Tree

D-320-10 Living Tree Display - A living tree seedling, 60 days to 2 years old (on State Fair judging day), grown from seed in the display container by the exhibitor. The container must have drainage holes, a drain pan to catch drainage water, and contain at least 8" of soil. Soil should be a potting mix or natural soil high in organic matter. The waterproof label must include the tree's common name, scientific name (underlined), date of planting, seed treatments (if any), date of emergence, and exhibitor's name. Supporting information such as where the seed was collected, growth measurements, uses for that species, etc. may be included on the label or in an attached notebook, poster, etc. Supporting information will be an important factor in judging.

DEPARTMENT D -- CONSERVATION & WILDLIFE

Division 340 -- Conservation & Wildlife

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Dare to do better than you've ever done before!

A. Show What You Did and Learned - All exhibitors are encouraged to show evidence of their personal field experiences, study or observations that relate to their exhibit. This helps judges understand what the 4-H'er did and learned in the process that led to the exhibit.

B. Proper Credit - Show proper credit by listing the sources of plans or other supporting information used in exhibits.

C. Whose Exhibit? - The exhibitor's name, address, and parent's name must be on the back or bottom of all displays so that the owner can be identified even if the entry tag becomes separated from the exhibit.

D. Wildlife and Wildlife Laws - "Animal" or "wildlife" in the following instructions includes wild fish, amphibians, reptiles, birds or mammals. Follow wildlife laws; example: wildlife laws do not allow collection of bird nests, eggs or parts.

E. Entries Per Individual - Each individual is limited to one exhibit per exhibit number.

F. Project Materials - Related project booklets include Bird Behavior (EC 5-93-81), Fishing for Adventure Project manuals, Wildlife Conservation (4-H 125), and Wildlife Habitat Evaluation Handbook, Participants Manual (NE 4H4300).

G. Board and Poster Exhibits - These are displays that show educational information about a topic of interest. Board exhibits can hold objects such as fishing equipment or casts of animal tracks. Mount all board exhibits on 1/4" plywood, masonite, or similar panel no larger than 24" high x 24" wide. Poster exhibits should be on regular poster sheets, no larger than standard size (22 by 28 inches) but half size, 22 by 14 inches, is recommended. Poster exhibits normally will be stapled in the corners for fair display and to prevent their blowing in the wind.

H. Scoring - Sample score sheets are available on the web at <http://4h.unl.edu/programs/statefair/sfscoresheets.htm> Click on "conservation & wildlife" in the index. Then click on desired scoresheet.

Division 340 - Wildlife and How They Live (Classes 1-3)

D-340-1 Mammal Display

D-340-2 Bird Display

D-340-3 Fish Display

D-340-4 Reptile or Amphibian Display

Class 1 - 4 are board or poster exhibits. Display may show any aspect of wildlife, wildlife habitat, or related conservation, restoration, or management. Examples: life history or other facts about one type of wildlife; how to manage wildlife on a farm or in town; managing habitat for one kind of wildlife; life requirements for one kind of wildlife during one season or through the year; wildlife study methods; wildlife behavior (examples: when nesting, finding food, moving, etc.); habitats (examples: grasslands, wetlands, river or stream corridors) and what wildlife is found there; habitat needs for a specific kind of wildlife. For more ideas, refer to project booklets.

D-340-5 Wildlife Connections

Board or poster exhibit. The purpose of this display is to show interconnections and related aspects among animals, plants, and other habitat components. All displays should show two or more interactions (connections) that occur

between/among animals or between animals and their habitat. Displays might show how animals interact with other animals, with people or with their habitat. Examples: 1) Food chain display. Use pictures, drawings, or other items to illustrate the source of food energy and where it goes -- who eats whom or what. Use arrows to show the direction of the energy (food) flow. 2) Show the role of predators, scavengers, insect eaters, or others in nature. 3) Show how wildlife numbers (populations) change through the year or with their habitat. 4) Show predation, competition, or other behavioral interactions of wildlife. 5) Choose one kind of wildlife and make observations through a season or year, keep notes of interactions, then make a display of what you saw. 6) For more ideas, refer to project booklets.

D-340-6 Wildlife Tracks

Board or diorama-type box exhibit. Make a display of animal tracks using plaster-of-paris casts. There are two options. For both options, include a brief description of your experiences in making the tracks so the judges better understand what you did and learned. Positive casts (impressions as they would be in nature) are preferred. 1) Option one should show plaster-of-paris tracks of five or more kinds of wildlife along with a picture or illustration of each kind of animal. 2) Option two should show more than one plaster-of-paris track of one specific kind of wildlife and should include a picture or illustration of the animal, what the animal may eat, and what may eat the animal.

D-340-7 Wildlife Knowledge Check

Use electrical circuits, pictures, or other methods of teaching wildlife identification or other wildlife related knowledge. Plan size and shape to fit transportation and display; maximum size 24 x 24 inches. Example: prepare a list of animals and questions about where each would most likely live. Rabbits--brushy areas along field borders; ducks--marshes, etc.

D-340-8 Wildlife Diorama

Box must be no larger than 24" x 24". The exhibit might show a grassland, prairie, agricultural, woodland, riparian (stream or river corridor), wetland, and/or other area with wildlife habitat. Example: show a large unbroken grassland or prairie for species such as meadowlarks, greater prairie-chicken, lark bunting, grasshopper sparrows, Ferruginous hawk, burrowing owl, horned lark, upland sandpiper, or pronghorn; AND/OR show an area interspersed with several habitats such as windbreaks, farm fields, woods, waste areas, ditches, and pastures for edge-adapted species such as white-tailed deer, Northern bobwhite, mourning doves, cottontail rabbits, fox, squirrels, Northern cardinals, or blue jays. Label the habitats displayed and show at least five kinds of wildlife in their proper habitats..

D-340-9 Wildlife Essay

Learn how to share educational information by writing. Choose a conservation or wildlife topic that interests you and write an essay about it. For example, write about a particular species of wildlife that you have observed or about the values of wildlife. You might write about wildlife on a farm, in town, in a backyard, at a backyard feeder, or at other places. You might write about hunting, fishing, or ethics and proper behavior for hunting or fishing. For other ideas, refer to project booklets. The essay should be between 100 and 1,000 words long and should be typed, double spaces, or written so that it can be easily read. Standard size paper (8 1/2 x 11) format is preferred. You might use books, magazines, or personal interviews as resources, but you must give credit to all sources by listing them.

D-340-10 Wildlife Values Scrapbook

Make a scrapbook about the various values of wildlife following guidelines in the Wildlife Conservation project booklet (4-H 125).

D-340-11 Wildlife Arts

The purpose for this class is to allow artistic exhibits that contain educational information about conservation and wildlife. Examples might include paintings, photographs, wood carvings, painted duck decoys or songs or poems written by the exhibitor. Entries must be appropriate for fair display and no larger than 24" x 24". For example, paintings or photographs should be displayed in notebook format or mounted on a sturdy display panel. All entries must include a title and brief explanation of the purpose or message (what is the exhibit meant to show).

Division 342 -- Wildlife Habitat

D-342-1 Houses

Make a house for wildlife. Examples: bird house (bluebird, purple martin, wood duck, kestrel, barn owl, etc.) or a bat house; no insect houses. Make the house functional so that dimensions, hole size, etc. are appropriate to fit the intended species' needs. Include the following information: 1) the kinds of animal(s) for which the house is intended; 2) where and how the house should be located for best use; and 3) any seasonal maintenance needed. Tips: Check NebGuide on bird houses and shelves G01-1427A

D-342-2 Feeders/ Waters

Make a bird bath or feeder. Examples: seed, suet or nectar feeders. Squirrel feeder okay, no insect feeders. Indicate the kinds of animal(s) for which the feeder or waterer is intended. Make the feeder or waterer functional so that it fits wildlife needs. Include the following information: 1) where and how the feeder or waterer should be located for best use; and 2) how it should be maintained. Tips: Check NebGuide on feeding birds G83-669A

D-342-3 Wildlife Habitat Design

Board or poster exhibit. Choose a backyard, acreage, or farm, and design a habitat plan to meet the food, water, shelter, and space needs of at least three kinds of animals you would like to attract. Draw an outline of the area and show what plants or other habitat will be provided. Indicate how the various parts of your plan provide the desired habitat needs. You might include an aerial photo of the area if you have one. For ideas, check the Wildlife Habitat Evaluation Handbook, Participant's Manual (4H-4300).

Division 343 - Harvesting Equipment

D-343-1 Fish Harvesting Equipment

Board exhibit. Display of equipment used in fish harvesting. Examples: fishing knots, hooks (with corks over ends for safety), lures. Label all items displayed. Include in your exhibit the following information: 1) purpose of each item; 2) when or where each item is used in relation to other equipment; and 3) any personal experiences you've had with the item(s).

D-343-2 Build A Fishing Rod

Build your own fishing rod for exhibit and for fishing use. Rod building blanks and kits with instructions are available for this purpose. For fair exhibit, follow guidelines in the Fishing for Adventure manuals.

D-343-3 Casting Target

Make a casting target for exhibit and use, following guidelines in the project booklet, Fishing For Adventure manuals.

D-343-4 Wildlife Harvesting Equipment

Board exhibit. Display of equipment used in harvesting wildlife. Examples: expended ammunition casings (no live ammunition permitted), steel traps, hide stretchers, fleshers, etc. For displays of shotguns, rifles or bows, use drawings or pictures. Label all items displayed. Include in your exhibit the following information: 1) the purpose of each item; 2) when or where it is used in relation to other equipment; and 3) any personal experiences you've had with the item(s).

Division 346 - Taxidermy

D-346-1 Tanned Hides or Taxidermy

Any legal fish, bird, or other wild animal properly processed by the member. No requirement as to size or mounting. Include the following information: 1) the animal's name and 2) information about the exhibitor's personal field experiences, study or observations that relate to the exhibit.

Division 361 - Other Natural Resources

D-361-1 Design Your Own Exhibit in Natural Resources, Conservation or Ecology

This class is for educational exhibits about natural resources, conservation, wildlife, or ecology that do not fit into other categories. Examples may come from the *Exploring Your Environment* series (Eco-Wonders, Eco-Adventures, Eco-Actions), or the exhibitor may determine what the exhibit will be. Entries must be appropriate for fair display and no larger than 24" x 24". All entries must include a title and should be clear (a brief explanation or other method) about the intended purpose or message - what the exhibit is meant to show. Think about accuracy, creativity, educational value for viewers, and evidence of exhibitor's personal experiences and learning.

DEPARTMENT E -- SAFETY

Division 440 -- Safety

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

E-440-1 First-Aid Kit

Prepare the kit according to guidelines in the Citizen Safety manual, 4-H 425, page 6 & 7. Refer to score sheet SF110 rev 2002. Kits containing any of the following will be automatically disqualified:

1. Prescription medications (If the kit's purpose is to provide medication for someone with special needs, explain in the written description and inventory, but remove the medication.)
2. Materials with expiration dates on or before the State Fair judging date. (This includes sterile items, non-prescription medications, ointments, salves, etc. Articles dated month and year only are considered expired on the last day of that month.)
3. Any controlled substance.

E-440-2 Disaster Kit (Emergency Preparedness)

Disaster Kits must contain the materials to prepare a person or family for emergency conditions caused by a natural or man-made incident. Selection of materials is left to the exhibitor. Family or group kits must have enough material or items for each person. A description of the kit's purpose and a list of contents is required. Please include short explanation of water needs for your disaster kit. Do not bring actual water to the fair in the kit. Refer to Score Sheet F 13-06-79.

E-440-3 Safety Scrapbook

Scrapbook must contain 15 news articles from both print and internet about various incident types. Mount each clipping on a separate page accompanied by a description of events leading to the incident and any measures that might have prevented it. The scrapbook should be bound in a standard size hardcover binder or notebook for 8 1/2" x 11" size paper. Correct sentence structure, readability, and thorough explanations are an important part of judging.

Division 450 - Fire Safety

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

E-450-1 Fire Safety Drawing

This is a home floor plan drawn to scale showing the primary and secondary escape routes and where fire extinguishers and smoke detectors are located. Draw every room: include all doors and windows. Use black or blue arrows showing primary escape routes from each room. Use red arrows showing secondary routes to use if the primary routes are blocked. Primary and secondary escape routes must lead outside to an assembly location.

E-450-2 Fire Safety Scrapbook

This scrapbook will contain at least ten (10) news articles from both print and internet sources about fires. Each clipping will be mounted on a separate page and include probable cause of the fire and measures that could have

prevented it. The scrapbook should be bound in a standard hard cover binder or notebook for 8 1/2" x 11" paper. Correct sentence structure, readability and thorough explanations are an important part of judging.

E-450-3 Fire Prevention Poster

This must be constructed of commercial poster board at least 11"x14". Any media can be used. Posters should be appropriate to display during National Fire Prevention Week or to promote fire safety at specific times of the year (Christmas, Halloween, 4th of July, etc.). Originality, clarity and artistic impression will all be judged. Do not include live fireworks, matches or other flammable/explosive/hazardous materials. An entry containing this material will be disqualified.

Division 902 - ATV, Bicycle & Tractor Safety

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

All fair exhibits and posters should include the name, age, year, full address and county on the back side.

E-902-1 All Terrain Vehicles (ATV) Educational Display - An educational presentation on some aspect of the project.

This exhibit may be presented in poster 14"x22" or display form.

E-902-2 Cycling or Bicycle Educational Display - An educational presentation on some aspect of the project. This exhibit may be presented in poster 14"x22" or display form.

E-902-3 Tractor Educational Display - An educational presentation on any aspect of the project. This exhibit may be presented in poster 14"x22" or display form.

DEPARTMENT E -- LIFETIME SPORTS ACTIVITIES

Division 903 -- Lifetime Sports

Purple \$2.00, Blue, \$2.00, Red \$1.50, White \$1.00

All fair exhibits and posters should include the name, age, year, full address, and county on the back side.

E-903-1 12"x18" box diorama depicting some aspect of the project.

E-903-2 14"x22" poster diagramming a skill or term.

E-903-3 A scrapbook which might include newspaper clippings, magazine articles, accomplishments, or experiences gained through taking the project, photographs showing the youth demonstrating a skill.

E-903-4 A notebook with written articles about the project. ...They could also include photographs and magazine pictures.

E-903-5 Draw, photograph or paint a picture depicting an aspect of the sport.

Division 904 - Shooting Sports/Firearms - BB Gun or Air Rifle

No premiums in keeping with amateur status.

4-H members enrolled in the Shooting Sports 4-H program may enter the 4-H shooting competition. Eye protection is required for everyone on the firing line. Contestants must have one coach (leader, instructor and parent) to assist and supervise them on the range. Contestants must furnish their own firearm and ammunition. All guns must arrive and depart the range cased and unloaded.

All rules, regulations and safety procedures concerning a shooting competition and shooting range must be followed by all participants, leaders, instructors and parents or a shooter may be disqualified from the competition. Entry forms must be signed by the member's certified shooting instructor. Contestants must have consistently demonstrated to the leaders in charge that they are physically capable of properly and safely handling the firearm or are willing to comply with safety rules.

Shooting Sports contestants may enter all areas in which they have received qualified instruction.

Clear Barrel Indicators will be required. Clear Barrel Indicators or CBI's are synthetic monofilament cords (0.065" - 0.095" dia...trimmer string) in fluorescent orange or a similar bright color that are inserted into the bores of air rifles so that the ends of the CBI protrude out of both the muzzle and open breech. CBI's must be inserted in all air rifles when they are brought to a range or removed from a gun case on a range. CBI's may be removed only during preparation periods, change-over periods, and firing times. The use of CBI's is mandatory in all Three-Position Air Rifle Competitions.

BB Gun Division

Only smooth bore guns will be allowed. Ten (10) shots will be fired from 5 meters in the following positions - prone, standing, sitting and kneeling (fired in this order) - or a total of 40 shots. Each contestant will be allowed 10 minutes for record shots plus sighters per target. AR4/10 targets will be used. Contestants will fire one shot at each bull. No scopes allowed.

E-904-1 8-11 years old by January 1 of the current year

E-904-2 12-13 years old by January 1 of the current year

E-904-3 14 and over by January 1 of the current year

Air Rifle Division (Sporter)

Ten (10) shots will be fired from 10 meters in prone, kneeling and standing positions for a total of 30 shots. Each contestant will be allowed 15 minutes for record shots plus sighters per target. Rifles are limited to sporter grade target rifles as defined in the national Standard Three-Position Air Rifle. (Retail value of \$350 or less) which shoot .177 caliber only. (Must be lead pellets; no BB's.) Example: Daisy models 753, 853, 888. Scopes are not allowed. AR5/10 targets will be used.

E-904-4 8-11 years old by January 1 of the current year
E-904-5 12-13 years old by January 1 of the current year
E-904-6 14 and over by January 1 of the current year

Trap Shoot Division

Trap will shoot 50 shots. There will be two rounds of 25 with 5 per station. A ten shot shoot-off will break ties. Must wear ear protection.

E-904-7 12-13 years old by January 1 of the current year.
E-904-8 14 and over by January 1 of the current year.

Air Pistol Division

Air pistol will have 40 shots with 5 shot per target on eight targets. Junior and Intermediate can shoot with two hands.

E-904-9 Junior 10-11 years old by January 1 of current year.
E-904-10 Intermediate 12-13 years old by January 1 of current year.
E-904-11 Senior 14 and over by January 1 of current year.

Archery Division

All archers will shoot a total of 30 arrows. Junior archers will shoot at 10 yards. Intermediate and Senior archers will shoot at 20 yards. Male and female shooters will not shoot in separate classes.

Traditional & Barebow classes:

E-904-12 8-11 year olds by January 1 of the current year.
E-904-13 12-13 year old by January 1 of the current year.
E-904-14 14 and over by January 1 of the current year.

Freestyle Limited classes:

E-904-15 8-11 year olds by January 1 of the current year.
E-904-16 12-13 year old by January 1 of the current year.
E-904-17 14 and over by January 1 of the current year.

Freestyle Unlimited classes:

E-904-18 8-11 year olds by January 1 of the current year.
E-904-19 12-13 year old by January 1 of the current year.
E-904-20 14 and over by January 1 of the current year.

Classes may be combined at superintendent's discretion.

Definitions:

Traditional - recurve and longbows. No sights, stabilizers or counter balances allowed. Releases other than gloves, tabs or fingers shall be illegal.

Barebow - All equipment is free of sights, marks and blemishes. Stabilizers may be used. Releases other than gloves, tabs, or fingers shall be illegal.

Freestyle Limited - No limit on sights or stabilizers. Release aids should be limited to gloves, tabs and fingers.

Freestyle Unlimited - No limit on sights or stabilizers. Mechanical release aids may be used.

DEPARTMENT G -- CROPS (AGRONOMY)

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Including projects related to Field Crops and Weed Science.

The purpose of these exhibits is to demonstrate to the public the benefits from the study and application of crop, weed, range and soil sciences to solving problems in management, conservation, sustainability and environmental protection.

For guidelines on specific projects, refer to appropriate project manuals.

Division 750 -- Crop Production

GENERAL INFORMATION:

A. Individuals with Field Crop Production Projects may exhibit grain or plants or prepare an educational display representing their project.

B. IMPORTANT: A two page (maximum) essay must accompany grain and plant exhibits. The essay must include the exhibitors name and address, county, plant hybrid or variety, plant population, whether crop production was irrigated or dryland, and general information including farm cropping history, soil type and weather effects. The essay also must include an economic analysis of the project, covering income and expenses per acre. Other topics to discuss are the selection of variety or hybrid, impacts of tillage and conservation practices, inputs (fuel, fertilizer, irrigation, labor, pesticides, etc.), any observations made during the growing season, and what you learned from your crops project.

The essay counts as 25% of the total when judged. Essay must be the original work of the individual exhibitor. Attach the essay to the entry in a clear plastic cover such that it can be read without removing it from the cover. In addition to the essay, grain and plant exhibits will be judged on condition, appearance (i.e. disease and insect damage, grain fill),

uniformity (size, shape, color, maturity), and quality of exhibit.

C. Grain exhibits must be one gallon per sample. Fall harvested crops (e.g. corn or soybeans) may be from the previous year's project. Plant exhibits: Corn 10 ears or 3 stalks (cut at ground level with no soil and bound together); Grain Sorghum - 4 stalks (cut at ground level and bound together); Soybeans - 6 stalks (cut at ground level and bound together); Small grains (oats, barley, wheat, triticale) - sheaf of heads 2 inches in diameter at top tie with stems about 24" long. Other crops (alfalfa, millet, etc.) - Sheaf of stems 3 inches in diameter at top tied with stems cut at ground level or half size small square bale. All plant exhibits, with the exception of ears of corn, must be the result of the current year's project.

G-750-1 Corn (includes yellow, white, pop, waxy, or any other type)

G-750-2 Soybeans

G-750-3 Oats

G-750-4 Wheat

G-750-5 Any other crop (includes grain sorghum, alfalfa, millets, barley, rye, triticale, amaranth, dry beans, sugar beet, mung bean, canola, forage sorghum, safflower, etc.)

G-750-6 Crop Production Display - The purpose of this class is to allow original and creative exhibits that contain educational information about crop production aspects, such as crop scouting, alternative crops, bioenergy, etc.

G-750-7 Crop Technology Display - Display information about aspects of technology used in crop production, such as genetic engineering, crop breeding, GPS, yield mapping, computers, etc.

G-750-8 Crop end Use Display - Display information about the uses for a crop including examples of products.

G-750-9 Water or Soil Conservation display - Display information about ways to protect or conserve water and soil resources.

G-750-10 Soils Display - The purpose of this class is to allow original and creative exhibits that contain educational information about soils, such as how soils are being used for crop production, range, conservation, wildlife, or wetland use.

Guidelines for all Displays: The purpose of the display is to tell an educational story to those that view the display. The display is a visual representation (pictures, charts, graphs) as a poster on 24" by 24" 1/4" plywood or posterboard. The display should be neatly titled. Make sure to label display with exhibitor's name, address, and county on back side. Explain pictures and graphs clearly and concisely. Each display must have a one page essay explaining why the exhibitor chose the area of display and what they learned from their project. Include any references used. The essay should be in a clear plastic cover with the exhibitor's name outside.

Division 751 -- Weed Management

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

A. Any individuals with a range or conservation projects may exhibit a weed book or weed display. The book cover and majority of specimens must represent this year's work. For assistance identifying plants, participants can use Nebraska Department of Agriculture's "Weeds of Nebraska and the Great Plains" (1994) or "Weeds of the Great Plains" (2003).

B. Exhibits will be judged based on completeness of plant mount, accuracy of identification, label, neatness and conformity to exhibit requirements.

C. Display one plant on the book cover (no label required on cover specimen). Plants must be mounted on sheets that are 11" wide x 14" high. Proper plant mount should include root as well as stem and leaf tissue. Plants should be glued rather than taped and the mounts should be protected with a clear cover. Each completed mount must have a 3" x 5" cardstock label glued flush in the lower right corner of the mounting sheet. The label (see example below) should include the following information: 1. Scientific name (in italic or underlined), with authority, 2. Common name, 3. County of collection, 4. Collection date, 5. Collector's name, 6. Collection number, 7. Other information depending on class selected, i.e., noxious, life form. This information should be typed or printed neatly.

PLANTS OF NEBRASKA

Scientific name: *Abutilon theophrasti* Medic.

Common name: velvetleaf

County of collection: Lancaster County

Collection date: 6 September 2002

Collector's name: Dan D. Lion

Collection number: 3

Life Cycle: annual

G-751-1 Weed Identification Book - Each book shall contain a minimum of 15 plant mounts and must include at least two of the following prohibited noxious weeds (Canada thistle, musk thistle, plumeless thistle, salt cedar, leafy spurge, purple loosestrife, diffuse knapweed, or spotted knapweed), and at least five weeds that are a problem primarily in lawns.

G-751-2 Longevity - A collection of 6 perennial, 1 biennial, and 6 annual weeds selected from grasses, sedges or forbs.

G-751-3 Weed Identification Board - This exhibit should display a collection of 20 weed species important to a particular

county. The display board should be hinged in the middle with the total open width of 60" and height of 36". This display should be adequately labeled.

G-751-4 Weeds Display - The purpose of this class is to allow original and creative exhibits that contain educational information about weeds, such as the effects of weed control, herbicide resistant weeds, what makes a weed a weed, or uses for weeds.

Guidelines for Displays: The purpose of the display is to tell an educational story to those that view the display. The display is a visual representation (pictures, charts, graphs) as a poster on 24" by 24" 1/4" plywood or poster board. The display should be neatly titled. Make sure to label display with exhibitor's name, address, and county on back. Explain pictures and graphs clearly and concisely. Each display must have a one page essay explaining why the exhibitor chose the area of display and what they learned from their project. Include any references used. The essay should be in a clear plastic cover with the exhibitor's name outside.

DEPARTMENT D -- RANGE MANAGEMENT

Division 330 -- Range Management

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Individuals in the Reading the Range Unit I project may exhibit Classes 1-5, and 8.

Individuals in the Using Nebraska's Range (Unit II) project may exhibit in Classes 1-8. Refer to EC 170 and EC 118 for plant identification.

Each exhibit must be properly identified with Unit and Class. Exhibits will be judged based on completeness of plant mount, accuracy of identification, label, neatness and conformation to project requirements. All plant displays and display covers must be the result of the current year's work.

Lists of appropriate plants in each category (grasses, forbs, shrubs and grass-like plants) can be found in Range Judging Handbook for Nebraska (EC 98-150-F) and Common Grasses of Nebraska (EC 05-170) and Nebraska Range/Pasture Forbs and Shrubs (EC 118).

Plants must be mounted on sheets that are 11" wide x 14" high. Plants should be glued rather than taped and the mounts should be protected with a clear cover. Proper plant mount should include root as well as stem and leaf tissue. Each completed mount must have a 3" x 5" cardstock label glued flush in the lower right corner of the mounting sheet. The label (see example below) should include the following information: 1) Scientific name (in italic or underlined), with authority, 2) Common name, 3) County of collection, 4) Collection date, 5) Collector's name, 6) Collection number, and 7) Other information depending on class selected, i.e., grazing response, longevity, season of growth, origin, life form. This information should be typed or printed neatly.

PLANTS OF NEBRASKA

Scientific name: *Schizachyrium scoparium (Michx.) Nash*

Common name: Little bluestem

County of collection: Lancaster County

Collection date: 6 September 2002

Collector's name: Joe Smith

Collection number: 3

Grazing response: decreaser

D-330-1 Grazing Response -- A collection of 4 decreasers, 4 increasers and 4 invaders.

D-330-2 Longevity -- A collection of 6 perennial plants and 6 annual plants selected from grasses or forbs.

D-330-3 Season of Growth -- A collection of 6 cool-season grasses and 6 warm-season grasses.

D-330-4 Origin -- A collection of 6 native range grasses and 6 introduced grasses. Introduced grasses are not from North America and often used to seed pastures.

D-330-5 Life Forms -- A collection of 3 grasses, 3 forbs, 3 grass-like and 3 shrubs.

D-330-6 Range Plant Board -- Will include 25 range forage species important to a particular county. The display board should be hinged in the middle (total open length of 60" and height of 36"). This display should be adequately labeled.

D-330-7 Special Study Exhibit -- A display of the results of a clipping study, a degree of use study, or a range site study. The boards in this class should be 30" x 36" or if hinged in the middle may be 60" x 36". The display should be adequately labeled.

D-330-8 Junior Rancher Exhibit -- This exhibit should include the ranch map with record book or an appropriate educational display on some phase of rangeland or livestock management. The overall size of the exhibit should not be larger than 30" wide and 36" high.

DEPARTMENT G -- HORTICULTURE

Division 770 -- Floriculture

Class 1 - 43 Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Class 44 - Purple \$6.00, Blue \$6.00, Red \$5.50, White \$5.00

Class 50 - 65 Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

WORLD OF FLOWERS AND/OR ANNUAL FLOWERS:

Youth must be enrolled in the WORLD OF FLOWERS AND/OR ANNUAL FLOWERS projects to exhibit a maximum of four (4) exhibits per person in classes 1-45 (cut flowers) and 50-53 (notebooks and posters). Exhibits are limited to ONE EXHIBIT PER EXHIBIT CLASS NUMBER.

THE CULTIVAR OR VARIETY NAME MUST BE INCLUDED ON ALL ENTRY CARDS. Failure to identify the cultivar or variety will drop entry one ribbon placing. Proper identification is the responsibility of the exhibitor not the Extension staff or office personnel. For Floriculture, punch hole in the top center of entry tag, use a rubber band to securely attach entry tag to containers.

Exhibits entered under an incorrect class number or containing an incorrect number of stems will be dropped one ribbon placing. A perennial is defined as a plant of which the crown overwinters. An annual is a plant that grows from seed each season, whether self-seeded or planted by the gardener. A biennial is a plant that germinates, grows and overwinters as a crown, blooms the following year and dies. Foliage will be considered when exhibit is judged.

Cut Flowers: All 3 or 5 stems of cut flowers should be the same cultivar and color, do not mix cultivars and colors. Containers will not be judged, however they should be glass containers of a neutral color that won't tip over and of adequate size to display blooms. Containers will not be returned at State Fair. At County Fair, containers will be returned. Score Sheet SF106.

Annuals and biennials -- Five (5) stems of a single variety (cultivar) unless otherwise noted in parenthesis.

G-770-1 Aster	G-770-13 Hollyhock (3 stems)
G-770-2 Bachelor Buttons	G-770-14 Marigold
G-770-3 Bells of Ireland	G-770-15 Pansy
G-770-4 Browallia	G-770-16 Petunia
G-770-5 Calendula	G-770-17 Salvia
G-770-6 Celosia (crested or plum) (3 stems)	G-770-18 Snapdragon
G-770-7 Cosmos	G-770-19 Statice
G-770-8 Dahlia	G-770-20 Sunflower (under 3" diameter-5 stems, 3" or more diameter-3 stems)
G-770-9 Dianthus	G-770-21 Vinca
G-770-10 Foxglove	G-770-22 Zinnia
G-770-11 Gladiolus (3 stems)	G-770-23 Any other annual or biennial (Under 3" diameter-5 stems, 3" or more in diameter-3 stems) (do not duplicate entries in classes 1-22)
G-770-12 Gomphrena	

Perennials -- Five (5) stems from a single variety (cultivar) unless otherwise noted in parenthesis.

G-770-30 Achillea/Yarrow	G-770-37 Platycodon
G-770-31 Chrysanthemum	G-770-38 Purple coneflower
G-770-32 Coreopsis	G-770-39 Rose (3 stems)
G-770-33 Daisy	G-770-40 Rudbeckia/Black-eyed Susan
G-770-34 Gaillardia	G-770-41 Sedum
G-770-35 Helianthus	G-770-42 Statice
G-770-36 Liatris (3 stems)	G-770-43 Any other perennial (Under 3" diameter-5 stems, 3" or more in diameter-3 stems) (Do not duplicate entries in classes 30-42)

G-770-44 4-H Flower Garden Collection of 5 different flowers. Display in a box or other holder not more than 18" in any dimension. Boxes will not be returned at State Fair. At County Fair, containers will be returned. Each flower in the collection should be exhibited with the number specified for classes 1-43. Do not duplicate entries in classes 1-43 with any in the group collection.

Notebooks and Posters

G-770-50 Flower Notebook - Exhibit a notebook containing pictures of flowers grown in Nebraska. There must be at least 10 different species of annuals and/or biennials and 10 different species of perennials hardy to Nebraska. Bulbs may be included in a separate section. 4-H'ers may show more than one cultivar of the same species, but they will only count as one species. The notebook must be the result of the current year's work. Pictures from garden catalogs, hand drawn pictures or photographs may be used. Each cultivar must be labeled with the correct common name and scientific name; the height and spread of the plant and the growing conditions (for example: needs full sun and dry sandy soil) the species prefers. In addition to this information, bulbs should also be labeled as spring or summer flowering. Give proper credit by listing the sources of pictures and information used. The 4-H member's name, age, full address, county and years in the project(s) must be on the back of the notebook. Score Sheet SF 100.

G-770-51 Flower Garden Promotion Poster - Individual poster promoting flower gardening, size 14"x22" either vertical or horizontal arrangement. Poster may be in any medium: watercolor, ink, crayon, etc. as long as it is not 3-dimensional. Posters using copyrighted material will not be accepted. Entry card must be paper clipped to the upper right hand corner. The 4-H member's name, age, full address, county, and years in the project(s) must be on the back of the poster. Score Sheet SF103.

G-770-52 Educational Flower Garden Poster - Prepare a poster 14"x22"x2" (3-dimensional if needed) either vertical or

horizontal arrangement, illustrating a skill or project you have done or learned about in a 4-H flowers or houseplant project. One might show a special technique used or equipment incorporated in the garden. Refer to 4-H horticulture project manuals, but use your own creativity. Entry card must be paper clipped to the upper right hand corner. The 4-H member's name, age, full address, county and years in the project(s) must be on the back of the poster. Score Sheet SF104.

G-770-53 Flower Gardening History Interview - Neatly handwritten or typed account of a gardening history interview whose flower garden has inspired you. Maximum of 4 pages of text and 2 pages of pictures (include 1 picture of the person you interviewed) of their flower garden if the individual is still gardening. Protect with a clear report cover or small 3-ring notebook. The 4-H member's name, age, full address, county, and years in the project(s) must be on the back of the report cover or notebook. Score Sheet SF105.

GROWING GREAT HOUSEPLANTS: Youth must be enrolled in the Growing Great Houseplants project to exhibit in classes 60-65. Youth may enter a maximum of three entries in classes 50-65. The entries must be the result of the current year's work.

Container Grown Plants: The choice of container and soil quality will be considered in judging. Each plant must be identified by listing the names on the entry tag or on a card attached to the container. Plants should be grown in display container for a minimum of six weeks. Entries in Classes 63-65 must have been designed and planted by the 4-H member. Container grown plants shall be in pots no greater than 10" in diameter and weigh no more than 10 pounds. Dish and desert gardens may be up to 12" in diameter but not more than 10 pounds. Terrariums may not weigh over 10 pounds. Any container grown plant in Classes 60-65 that weighs over 10 pounds will be lowered one ribbon placing. Classes 60-64 exhibitors must have and provide a saucer to catch drainage water. The 4-H member's name, age, full address, county and years in project(s) must be on the bottom or back of the container and saucer. Score Sheet SF107.

G-770-60 Flowering potted plant(s) that are blooming for exhibition. Non-blooming plants will be disqualified.

G-770-61 Foliage potted plant(s) of all the same variety

G-770-62 Hanging baskets of flowering and/or foliage plants

G-770-63 Dish garden -- an open container featuring a variety of plants excluding cacti and succulents

G-770-64 Desert garden -- an open container featuring cacti and/or succulents

G-770-65 Terrariums -- a transparent container, partially or completely enclosed; sealed or unsealed

Division 773 -- VEGETABLES, HERBS & FRUITS

Classes 201-252, 260-268, 280-286: Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Classes 290-294: Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Classes 255, 256, 269: Purple \$6.00, Blue \$6.00, Red \$5.50, White \$5.00

Youth must be enrolled in the Everyone A Gardener Project and/or Gardening Unit 1 - Unit 4 to exhibit. An exhibitor may enter a maximum of FOUR entries per person in classes 201-294. Exhibits are limited to ONE EXHIBIT PER EXHIBIT CLASS NUMBER.

THE CULTIVAR OR VARIETY NAME MUST BE INCLUDED ON ALL ENTRY CARDS. Failure to identify the cultivar or variety will drop the entry one ribbon placing. Proper identification is the responsibility of the exhibitor not the Extension staff or office personnel. Exhibits entered under an incorrect class number or containing an incorrect number of vegetables will be dropped one ribbon placing. Score Sheet SF108.

Follow the guidelines in 4-H 226 (revised 1994) when preparing entries for the fair.

Class	Vegetable	No. to Exhibit		
			G-773-220	Parsnips 5
			G-773-221	Bell Peppers 5
G-773-201	Lima Beans	12	G-773-222	Sweet Non-Bell Peppers 5
G-773-202	Snap Beans	12	G-773-223	Jalapeno Peppers 5
G-773-203	Wax Beans	12	G-773-224	Hot (Non-Jalapeno) Peppers 5
G-773-204	Beets	5	G-773-225	White Potatoes 5
G-773-205	Broccoli	2	G-773-226	Red Potatoes 5
G-773-206	Brussel Sprouts	12	G-773-227	Russet Potatoes 5
G-773-207	Green Cabbage	2	G-773-228	Other Potatoes 5
G-773-208	Red Cabbage	2	G-773-229	Pumpkin 2
G-773-209	Carrots	5	G-773-230	Miniature Pumpkins
G-773-210	Cauliflower	2		(Jack Be Little type) 5
G-773-211	Slicing Cucumbers	2	G-773-231	Radish 5
G-773-212	Pickling Cucumbers	5	G-773-232	Rhubarb 5
G-773-213	Eggplant	2	G-773-233	Rutabaga 2
G-773-214	Kohlrabi	5	G-773-234	Green Summer Squash 2
G-773-215	Muskmelon/Cantaloupe	2	G-773-235	Yellow Summer Squash 2
			G-773-236	White Summer Squash 2
			G-773-237	Acorn Squash 2
			G-773-238	Butternut Squash 2
			G-773-239	Buttercup Squash 2
			G-773-240	Other Winter Squash 2
			G-773-241	Sweet Corn (in husks) 5
			G-773-242	Swiss Chard 5
Class	Vegetable	No. to Exhibit		
G-773-216	Okra	5		
G-773-217	Yellow Onions	5		
G-773-218	Red Onions	5		
G-773-219	White Onions	5		

G-773-243	Red Tomatoes (2" or more in diameter)	5	G-773-247	Turnips	5
G-773-244	Roma or Sauce-type Tomatoes	5	G-773-248	Watermelon	2
G-773-245	Salad Tomatoes (under 2" in diameter)	12	G-773-249	Dry Edible Beans	1 pint
G-773-246	Yellow Tomatoes (2" or more in diameter)	5	G-773-250	Gourds, mixed types	5
			G-773-251	Gourds, single variety	5
			G-773-252	Any Other Vegetables	2, 5 or 12
			- doesn't fit in any other class (Do not duplicate entries in classes 201-251)		

G-773-255 4-H Vegetable Garden Collection of Five (5) Kinds of Vegetables. Display Garden Collection in a box not more than 24" in any dimension. Boxes will not be returned at State Fair. Showmanship will be considered in judging, but plastic grass, cotton, figurines, etc. should not be used in exhibit boxes. Each vegetable in the collection should be exhibited with the number specified for class 201-252. Do not duplicate entries in classes 201-252 with any in the group collection.

G-773-256 4-H Cultivar Vegetable Collection. Vegetables entered in the collection are 5 cultivars from a single exhibit; for example, 5 cultivars of all types of peppers, squash, onions, tomatoes, etc. Display in a box not more than 24" in any dimension. Boxes will not be returned at State Fair. Showmanship will be considered in judging; but plastic grass, cotton figurines, etc. should not be used in exhibit boxes. Each vegetable in the collection should be exhibited with the number specified for individual class (201-252).

Herbs

Herbs will be judged using the same general criteria used for vegetables. Those grown mainly for their seed, such as dill and caraway should be exhibited on a plate. Those grown for their leaves such as basil, parsley, etc. should be exhibited in a glass container of water. Containers cannot be returned at State Fair. At County Fair, containers will be returned. Potted herb plants will be disqualified and will not be judged. Score Sheet SF108.

G-773-260	Basil	5	G-773-265	Parsley	5
G-773-261	Dill (dry)	5	G-773-266	Sage	5
G-773-262	Garlic (bulbs)	5	G-773-267	Thyme	5
G-773-263	Mint	5	G-773-268	Any Other Herb	5
G-773-264	Oregano	5	(Do not duplicate entries in classes 260-267)		

G-773-269 4-H Herb Garden Display of 5 different herbs. Display in a box or other holder not more than 18" in any dimension. Boxes will not be returned at State Fair. Each herb in the collection should be exhibited with the number specified for classes 260-268. Do not duplicate entries in classes 260-268 with any in the group collection.

Fruits

Fruit will be judged using the same general criteria used for vegetables. Fruit will be judged for the stage of maturity normal for that season and growing location. Emphasis will be placed on how well fruit approaches market quality. Score Sheet SF108.

G-773-280	Strawberries (everbearers)	1 pint
G-773-281	Grapes	2 bunches
G-773-282	Apples	5
G-773-283	Pears	5
G-773-284	Wild Plums	1 pint
G-773-285	Other small fruit or berries	1 pint (Do not duplicate entries in classes 280-284)
G-773-286	Other fruit or nuts	5 (Do not duplicate entries in classes 280-284)

Educational Exhibits

G-773-290 Garden Promotion Poster

Individual poster promoting vegetable and/or herb gardening, size 14" x 22" either vertical or horizontal arrangement. Poster may be in any medium so long as it is not 3-dimensional. Posters using copy-righted material will not be accepted. Entry card must be paper clipped to the upper right hand corner. The 4-H member's name, age, full address, county, and years in project(s) must be on the back of the poster. Score Sheet SF103.

G-773-291 Educational Vegetable or Herb Garden Poster

Prepare a poster 14"x22"x2" (3-dimensional if needed) either vertical or horizontal arrangement illustrating a skill or project the 4-H'er has done or learned about in a 4-H vegetable gardening project. One might show a special technique used or equipment incorporated in your garden (e.g. drip irrigation system, composting, or special techniques learned) Refer to 4-H horticulture project manuals, but use your own creativity. Entry card must be paper clipped to the upper right hand corner. The 4-H member's name, age, full address, county, and years in project(s) must be on the back of the poster. Score Sheet SF104.

G-773-292 Vegetable and/or Herb Gardening History Interview

Neatly handwritten or typed account of a gardening history interview whose vegetable or herb garden has inspired you. Maximum of 4 pages of text and 2 pages of pictures (include 1 picture of the person you interviewed) of their garden if the individual is still gardening. Protect with a clear report cover or 3-ring notebook. The 4-H member's name, age, full address, county, and years in project(s) must be on the back of the report cover or notebook. Score Sheet SF105.

G-773-293 Vegetable Seed Display

Each display must include seeds representing the following families: Cucurbit, Brassica (cabbage), Solanaceous (nightshade), and Legume (pea) families, plus representatives from 5 other families. Group the seeds by family and type. Glue seeds or otherwise fasten clear containers of seeds to a board or poster matt board no larger than 22"x24". Label each group and each individual vegetable type with the common and scientific names. Use only one variety or cultivar of each vegetable, except for beans where several examples of beans may be shown. Attach a card to the back of the display explaining why and how it is important to know which vegetables are related, and site references on where the scientific name information was found. On the back, label with the 4-H'ers name, age, full address, county, and years in the project(s). Information on vegetable family members can be obtained from your Extension office. Score Sheet SF101.

680-685-294 World of Vegetables Notebook

Choose a favorite foreign cuisine and learn what vegetables and/or herbs are common to it (e.g. Mexican, African, Chinese, Italian, etc.) Include a report telling about a minimum of 5 vegetables and/or herbs from each country chosen. Include the scientific and common names; pictures of the plants from your garden or seed catalogs; tell how they are grown; and how the foods are used. Also list a source for buying the seed or plants. Favorite recipes using some or all of the vegetables described may be included. Give proper credit by listing the source of pictures and information used. Protect in a clear report cover or 3-ring notebook. The 4-H member's name, age, full address, county, and years in the project(s) must be on the back of the report cover or notebook. Score Sheet SF102.

DEPARTMENT H -- ENTOMOLOGY

Division 800 -- Entomology

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Specimens to be mounted properly and labeled with the date and location of collection, name of collector, and order name. Follow mounting and labeling instructions in the Nebraska 4-H Entomology manual.

Purchased insects and other insects not collected by a participant can be included, but must have accurate labels and will not be counted in meeting minimum requirements for the exhibit.

Boxes to be not more than 12" high x 18" wide x 3 1/2" deep.

H-800-1 Entomology Display, First Year Project

Collection to consist of a collection of 25 or more different kinds (species) of insects representing at least 6 orders.

Limit of one box.

H-800-2 Entomology Display, Second Year Project

Collection to consist of a minimum of 50 kinds (species) of insects representing at least 8 orders. Replace damaged or poorly mounted specimens. About 25 species should be from after July 1 of previous year. Limit 2 boxes.

H-800-3 Entomology Display, Third Year or more project

Collection to consist of minimum of 75 kinds (species) of insects representing at least 10 orders. Replace damaged or poorly mounted specimens. About 25 species should be from after July 1 of previous year. Limit of 3 boxes.

H-800-4 Special Interest Display

Educational display developed according to individual interest and abilities. Examples include a collection from a specific insect group (e.g. butterflies, grasshoppers) or by subject (e.g. insect pests of corn, aquatic insects, insect mimicry, etc.), a research project, special report, poster display, insect scrapbook, artwork, etc.) Poster displays should be no larger than 22"x28". Other displays are restricted to a base area no larger than 22"x28". Nor should height be over 24". Research projects should include a report about methods and results, as well as a brief discussion about what was learned. Artwork should include brief information about the work. Each display should be self-explanatory so that the audience can understand it without help.

DEPARTMENT H -- VETERINARY SCIENCE

Division 840 -- Veterinary Science

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

The purpose of a Veterinary Science exhibit is to inform the public about a common health problem of animals or a veterinary science principle. Do not confuse veterinary science exhibit topics with animal husbandry or production topics.

A Veterinary Science exhibit may consist of a poster or a display. The exhibit may represent material from any of the Veterinary Science projects including entry level exhibits from Unit I.

If photographs are to be part of the exhibit, remember that they will be viewed by the public. Make sure that the photographs are in good taste and will not be offensive to anyone. Graphic photographs of excessive bleeding, trauma or painful procedures are not appropriate. For exhibits related to veterinary surgical procedures, aseptic techniques need to be shown, for example, use of drapes, use of sterile procedures, wearing of gloves, and other appropriate veterinary medical practices.

First-Aid Kits: Because of public safety concerns and risk of theft of first-aid kit contents (veterinary drugs/equipment) with perceived potential for drug abuse, NO ANIMAL FIRST AID KITS WILL BE PERMITTED. Animal first aid kits submitted will be immediately disqualified and not shown.

Veterinary Science Posters: This exhibit presents the viewer with a design that is simple and direct, unlike a display that usually presents more information. A poster should not exceed 22" x 28" and may be either vertical or horizontal.

Veterinary Science Display: A display may include but is not limited to: a 3-dimensional exhibit, a scale model, the actual product (for example skeleton; teeth; samples of leather, fur or dried skin damaged by disease or parasites) or a notebook. A display is not a poster. A display may be mounted on poster board not to exceed 22" x 28" or on 1/4"

plywood or equivalent that does not exceed 24" high or 32" wide.

Appropriate Veterinary Science Topics:

- Maintaining health
- Specific disease information
- Photographic display of normal and abnormal characteristics of animals
- Animal health or safety
- Public health or safety
- Proper animal management to ensure food safety and quality
- Efficient and safe livestock working facilities
- Or a topic of the exhibitors choosing

H-840-1 4-H Veterinary Science Large Animal Poster or Display

H-840-2 4-H Veterinary Science Small Animal/Pet Poster or Display

ENGINEERING AND AEROSPACE

GENERAL INFORMATION FOR DEPARTMENT H, DIVISIONS 850, 860, 870, 890, 891, 911, 920:

- A. The name, address and county of each exhibitor should appear separately on the back of each board; poster; or article; plans and on front cover of the notebooks so owner of exhibit may be identified if the entry tag is separated from the exhibit.
- B. Each individual is limited to one exhibit per class.
- C. 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 left width if two 24 inch boards are cut from one end of a 4'x8' sheet of plywood. Nothing should be mounted within 3/4" of the top or bottom of the board.
- D. Fabricated board such as plywood, composition board, or particle-type lumber may be used for demonstration displays.
- E. Demonstration boards should be sanded and finished to improve their appearance. The finish on a demonstration board will be judged as a woodworking exhibit.
- F. Demonstration boards should include an overall title for the display, plus other necessary labeling.
- G. All reports should be clearly written or typed and enclosed in a clear, plastic cover. The reports should be attached securely to the display.

DEPARTMENT H -- AEROSPACE

Division 850 -- Aerospace

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Refer to Engineering General Information. Rockets must be supported substantially to protect the rocket from breakage. Rockets are to be mounted on a base that has dimensions equal or less than 12" x 12" and the base should be 3/4" thick. No metal bases. If the rocket fins extend beyond the edges of the required base (12" x 12"), then construct a base that is large enough to protect the fins. The base size is dictated by the size of the rocket fins. The rockets must be mounted vertically. Please do not attach sideboards or backdrops, figures, legos, etc. to the displays. In addition a used engine or length of dowel pin is to be glued and/or screwed into the board and extended up into the rocket's engine mount to give added stability. Rockets must be equipped as prepared for launching with wadding and parachute or other recovery system. Rockets entered with live engines, wrong base size or sideboards will be DISQUALIFIED. A report protected in clear plastic cover, must include: 1) rocket specification; 2) a flight record for each launching (weather, distance, flight height); 3) number of launchings; and 4) flight pictures. The flight record should describe engine used, what the rocket did in flight and recovery success. Points will not be deducted for launching, flight or recovery failures described. This includes any damage that may show on the rocket. Complete factory assembled rockets (i.e. plastic fins) will not be accepted at the County or State Fair.

Judging is based on display appearance, rocket appearance, workmanship, design or capabilities for flight and number of times launched. Three launches are required to earn the 25 launch points given on the score sheets. (Score Sheet SF92/rev04). For scoring for the State Fair, only actual launches count, misfires will not count towards one of the required three launches.

The 4-H'ers name, address, county, age, and years in rocket project should appear on the bottom of the base and on the report.

4-H'ers may visit with the judge on Wednesday, July 16th between 1:00 p.m. to 2:00 p.m. about their rocket.

Lift Off - Unit 2

H-850-1 Rocket: Any Skill Level 2 Rocket with wooden fins painted by hand or air brush.

H-850-2 Display: Display exemplifying one of the principles learned in the Lift Off Project. Examples include: display of rocket parts and purpose, interview of someone in the aerospace field, or kite terminology. Display can be any size up to 28" x 22".

H-850-3 Rocket: Any Skill Level 2 Rocket with wooden fins painted using commercial application. Example: commercial spray paint.

Reaching New Heights - Unit 3

H-850-5 Rocket: Any Skill Level 3 Rocket with wooden fins painted by hand or air brush.

H-850-6 Display: Display exemplifying one of the principles learned in the Reaching New Heights Project. Examples include: airplane instrumentation, kite flying, or radio-controlled planes. Display can be any size up to 28" x

22".

H-850-7 Rocket: Any Skill Level 3 Rocket with wooden fins painted using commercial application. Example: commercial spray paint.

Pilot in Command - Unit 4

H-850-10 Rocket: Any Skill Level 4 Rocket with wooden fins or any self-designed rocket.

H-850-11 Display: Display exemplifying one of the principles learned in the Pilot in Command Project. Examples include: flying lessons, or careers in aerospace. Display can be any size up to 28" x 22".

DEPARTMENT H -- COMPUTERS

Division 860 -- Computers

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Refer to Engineering General Information.

Booting Up - Unit 1

H-860-901 Create a poster on a lesson learned in Unit 1. Examples might include: hardware, software programs, how to take care of a computer and operating systems.

Computer Mysteries - Unit 2

H-860-1 Computer Application Demonstration

4-H exhibitor demonstrates how to accomplish a task using a computer application software such as a spreadsheet, database, publishing, graphic design, accounting or precision farming program. This exhibit consists of a notebook (8.5x11 inches) which should include a (1) cover page; (2) a detailed report describing: a) the task to be completed, b) the computer application software required to complete the task, c) specific features of the computer application software necessary for completing the task, and d) other tasks that can be accomplished using the computer application software; and (3) print out of your project. Examples: design a logo for your school; enhance a digital image for a newspaper story; manage a checking account; create a poster to publicize an event; or to design scrapbook pages, or other.

H-860-2 Produce a Computer Slideshow Presentation

Using presentation software like Microsoft PowerPoint and following the *Checklist for Creating Your Next PowerPoint Presentation* located at <http://cit.informaton.unl.edu/info0806.htm>, the 4-H exhibitor develops a slideshow about a topic related to you. The slideshow should include a minimum of 10 slides and no more than 25. Incorporate appropriate slide layouts, graphics and animations. Each slide should include notes for a presenter. The exhibit includes a copy of the presentation saved to a CD-ROM along with a printout of the notes pages in a clear plastic cover. Slide presentation should relate to one topic.

H-860-3 Teach an Adult

The 4-H exhibitor writes a report between 1 and 3 pages describing a situation in which he or she has taught an adult(s) a computer skill. The report should include pictures of the 4-H'er working with the adult(s). The report should be in a clear plastic cover.

Computer Mysteries - Unit 3

H-860-5 Produce an Audio/Video Computer Presentation

Using presentation software a 4-H exhibitor designs a multimedia computer presentation on one topic related to youth. The presentation should contain a minimum of 10 computer screens and no more than 25, appropriate graphics, sound and either a video clip, animation or voice over and/or original video clip. The presentation must be able to be played and viewed on a PC using Windows Media Player, Real Player, iTunes or QuickTime Player.

H-860-6 Build a Web Site

Design a simple Web site for providing information about a topic related to youth using multiple computer application software programs such as an HTML editor like Microsoft's FrontPage or Macromedia's Dreamweaver, and image editor like IrfanView or GIMP. All files comprising the Web site should be included on a CD-Rom and able to be viewed using both Internet Explorer and Mozilla. Exhibit CD in a plastic case.

H-860-7 Build Your Own Computer

(One component only) - Exhibit will be a notebook (8.5x11 inches) that includes a (1) cover page; (2) detailed report (2-3 pages) describing a specific computer component: a) describe the component's purpose, b) how it is used, c) the location, d) why components were chosen, and e) cost of component from more than one source; and (3) pictures and supporting materials.

H-860-8 Mapping a Historical Site Within Nebraska

Using a global positioning system (GPS) device and a geographic information system (GIS) computer software application program like Arcview create an 8.5 x 11 inch map and pinpoint a historical site within Nebraska. Map should include title, base map, neat line, north arrow, and legend. Add 1-3 digital images of the historical site to the map and a brief explanation of the image and surrounding area, brief explanation of how photo was taken, camera, etc. Latitude and Longitude of the site, map datum used, position format used and a brief explanation of why you chose this site. Exhibit will include: 2-4 page report on map creation and the map itself enclosed in a clear plastic cover.

H-860-9 Hurricane Tracking Map

Exhibit will consist of a poster presentation using approved National Oceanic and Atmospheric Administration (NOAA) hurricane tracking maps. The maps can be of the Atlantic Ocean, the Pacific Ocean or the Gulf of Mexico. The tracking maps must have at least 1-3 hurricanes from the same hurricane season plotted on the map using different colors and different plotting shapes for each hurricane. The plotting point must be identified with a shape (dot, square, triangle, etc.) and must be connected by a line showing the progression of the storm. The plotting point will be every

12 or 24 hours with the date located to the right of the plot point. Hurricane data can be located at:

<http://www.wunderground.com/tropical/>. Poster size will be 14" x 22" and include: an 8 ½ x 11 poster which includes: (1) a title (include year of the hurricane season), (2) the name of the hurricane, and (3) listed below the name of the hurricane in column format: the dates of the storm in sequential order, the plotted latitude and longitude at 12 or 24 hour intervals, the highest hurricane category, and the highest sustained winds. Please include the Title, Base Map, Neat Line, North arrow and Legend.

H-860-10 Hurricane Tracking Poster - Exhibit will consist of a poster presentation using the approved National Oceanic and Atmospheric Administration (NOAA) hurricane tracking maps. Go to the National Hurricane Center to print a hurricane tracking map at <http://www.nhc.noaa.gov/>. Poster can be of the Eastern Atlantic, the Full Pacific or the Western Atlantic using different colors and different plotting shapes for each hurricane. The plotting point must be identified with a shape (dot, square, triangle, etc.) and must be connected by a line showing the progression of the storm. Plot points every 12-24 hours. Hurricane data can be located at: <http://www.wunderground.com/tropical/>. Include title, name of hurricane, date hurricanes begins and ends, distance traveled, minimum and maximum wind speeds, types of categories and latitude and longitude, etc.

H-860-11 4-H Youth Favorite Place

The 4-H exhibitor visits his or her favorite place in Nebraska. Using a Global Positioning Systems (GPS) receiver he/she records the latitude and longitude of his/her favorite place. The exhibitor also takes a digital picture of the favorite place. The exhibitor then uploads the data and picture to the 4-H Youth Favorite Places Web site at <http://www.youthfavoriteplaces.org/index.php>. Up to three site can be included in the state fair exhibit which is to consist of a folder/notebook explaining the steps involved in entering the data to the 4-H Youth Favorite Places Web site. Fair exhibit will include: A folder/notebook including a report for each site visited and at least one and no more than five digital photos and captions of each site visited. The reports should explain how the 4-H'er participated in the National 4-H Youth Favorite Places project, recording the information and then uploading it to the Web site. Each report should include (1) the nearest city or town, (2) the county where the site is located, (3) the latitude and longitude of the favorite place, (4) an explanation of why this is their favorite place and why other people should visit the place, and (5) a list the steps for entering the data on the Web site for the national project. A printed copy of the Web site posting of each favorite place uploaded should also be included with the report in the folder. NOTE: 4-H exhibitor should choose a public location that others can visit: not their personal residence.

H-860-12 GIS Thematic "Poster" Map - Using any GIS software, create a thematic map. Thematic maps can utilize any subject of interest to the 4-H'er. Maps could be of Amelia Earhart's journey, Sir Francis Drake's voyage, population density maps, water usage maps, or 4-H projects in Nebraska (examples). Create a GIS Map using data from books and/or internet. Use reliable data, ex. U.S. Center for Disease Control or U.S. Census Bureau. Poster - 14" x 22", should include Title, Base Map, Neat Line, North Arrow, and Legend. Identify the source of your information on the back of the poster.

H-860-13 Write a Software Program

This project allows a 4-H'er to demonstrate his or her skills in writing a computer program using a common programming language. The program must demonstrate the use of data files and subroutines. It should demonstrate a high degree of organization and quality suitable for distribution to the general public. The exhibit consists of a notebook (8.5x11) which should include these parts: (1) a cover page; (2) a report including: a) what the software can do, b) why you wrote the software, c) what features are included in the software, d) how you will use the program in the future; 3) a flow chart in block diagram form; and 4) an example of input and output.

DEPARTMENT H - ROBOTICS

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Division 861 - Robotics

Robotics - Robotic Explorer - Unit 1

H-861-001 Robot or Not Poster - Create a poster (14" x 22") demonstrating how to determine whether an object is a machine, a computer or a robot. Poster should include at least 2-4 objects.

H-861-002 Pseudocode Display Poster - Poster (14" x 22") should display the pseudocode written for the robot to perform at least four functions and utilize at least two modifiers. Include the pseudocode, and a written description of the icon functions.

H-861-003 Robotics Explorer Video - This class should be displayed in a notebook. The notebook should include a video clip on a CD/DVD that demonstrates the robot performing the programmed function. Include your pseudocode and a written description of the icon functions.

H-861-004 Robotics Explorer Interview - Interview someone who is working in the field of robotics. Interviews can either be written or in a multimedia format (CD/DVD). Written interviews should be in a notebook. Written reports should be 3 to 5 pages, double spaced, 12 point font, and 1" margins. Multimedia reports should be between 3 to 5 minutes in length.

H-861-005 Careers in Robotics - Research a career in robotics. Your report can be either written or in a multimedia CD/DVD format. Written reports should be in a notebook. Written reports should be 3 to 5 pages, double spaced, 12 point font, and 1" margins. Multimedia reports should be between 3 to 5 minutes in length.

Robotics - Robotic Probe - Unit 2

H-861-006 Rotation Sensor Notebook - Write pseudocode which includes at least one rotational sensor activity. Include the code written and explain what the code function is and how you would change it to improve either the function or

the code.

- H-861-007 Robotics Probe Notebook - youth should follow one of the following activities in the project manual: Go the Distance, Tighten Your Belts, or Do the Time. Based upon the activity you select, replicate and complete the chart. Your notebook should include the chart and the answer to the following questions: 1) What did you learn about gears and gear ratios? 2) What are the benefits of using belts and pulleys? 3) What is the relationship between gear ratio and speed?
- H-861-008 Build a Robot (may use kit) - Include a robot and a notebook which includes any code/pseudocode that you have written for the robot, the robot's purpose, and any challenges or changes you would make in the robot design or programming.
- H-861-009 Life Skills Notebook - Using the Life Skills Model (available through your local extension office), develop a notebook that explains which life skills you developed while enrolled in the robotics project and how they will influence you in the future.

DEPARTMENT H -- ELECTRIC

Division 870 -- Electricity

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

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".
- 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".
- 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".
- 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".

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" 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".
- 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".
- 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" Plexiglas 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".

Wire for Power - Unit 3

- H-870-1 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.
- H-870-2 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.
- H-870-3 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.
- H-870-4 Poster should exemplify one of the lessons learned in the Wire for Power Project. Posters can be any size up to 28" x 22".

Entering Electronics - Unit 4

- H-870-5 Electrical/Electronic Part Identification: Display different parts used for electrical/electronics 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.
- H-870-6 Electronic Display: Show an application of one of the concepts learned in the Electronics project. Examples include: components of a electronic device (refer to pg. 35 of the Electronic manual).
- H-870-7 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.
- H-870-8 Poster should exemplify one of the lessons learned in the Entering Electronics Project. Posters can be any size up to 28" x 22".

DEPARTMENT H -- SMALL ENGINES

Division 890 -- Small Engines

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

Refer to Engineering General Information.

Small Engine - Crank It Up - Unit 1

H-890-901 Small Engine Display/Item: Show an application of one of the concepts learned in the Crank It Up project.

Examples include: identify the parts on a small engine, safety rules for starting a small engine, small engine repair tool identification.

Small Engines - Warm It Up - Unit 2

H-890-1 Small Engine Display/Item: Show an application of one of the concepts learned in the Warm It Up project.

Examples include: comparison of engine oil types, transmissions, or safety related to engines. Exhibit could be a poster display, or an actual item.

Small Engines - Tune It Up - Unit 3

H-890-2 Engine Display/Item: Display/Item should exemplify one of the lessons learned in the Tune It Up Project.

Examples include: diagnostic tools fuel systems, ignition systems. If a complete engine is exhibited, it will not be started. However, display needs to report process of building/rebuilding engine and how/where engine will be utilized (i.e. lawn mower, weed eater, snow blower, etc.)

DEPARTMENT H -- RESTORED VEHICLE

Division 891 -- Restored Vehicle

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

Refer to Engineering General Information.

H-891-1 Restored Vehicle and report may be displayed at County Fair. In lieu of bringing a tractor, etc. to the State Fair, the

4-H'er can submit a detailed report explaining the process used to restore or overhaul. Also include a VHS tape or digital

recorded copy of the item and the process used.

DEPARTMENT H -- WOODWORKING

Division 911 - Woodworking

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

The ability to build objects as designed by another person is an important life skill. Professional woodworkers often are hired to build objects to exacting specifications as laid out in a written plan.

Requirements: All articles exhibited must include a plan stating dimensions and other critical instructions a builder would need to know to build the project. Plans may include narrative instructions in addition to the dimension drawings. Part of the score depends on how well the project matches the plans. If 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-H'ers must be in advanced woodworking projects for the exhibit to be considered for State Fair.

Woodworking - Measuring Up - Unit 1

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

Woodworking - Nailing It Together - Unit 3

H-911-1 Woodworking Article - Item made using skills learned in the Nailing It Together manual. Examples include: bookcase, coffee table or end table. Item should be entered with construction plans.

H-911-2 Woodworking Display - Display exemplifying one of the principles learned in the Nailing It Together Project. Examples include: measuring angles, wood lamination and joint types.

Woodworking - Finishing Up - Unit 4

H-911-3 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 should be entered with construction plans.

H-911-4 Woodworking Display - Display exemplifying one of the principles learned in the Finishing It Up Project. Examples include: career opportunities, types of finishes, or dovetailing.

DEPARTMENT H -- WELDING

Division 920 -- Welding

Purple \$2.00, Blue \$2.00, Red \$1.50, White \$1.00

Refer to Engineering General Information. All metal welding process accepted. All welds exhibited in Class 1 or 2 must be mounted on a 12" high, 15" long display board of thickness not to exceed 3/8". 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) welder 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. 4-H'er must be in third year of a welding project to exhibit welding at the State Fair.

H-920-1 Welding Joints - A display of one butt, one lap and one fillet weld.

4-H Welding Project Tips and Suggestions:

- 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.
- 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.
- It is suggested that all welds be on 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 new cold rolled strap iron and cut 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" if using 1/8" rod. Suggested rod-AC and DC straight or reverse polarity - first E-7014, second E-6013

MIG welding: Suggested coupon thickness - 1/4" if using .035 wire and 1/8" if using .023 wire

Oxy-Acetylene: Suggested coupon thickness - 1/8". Suggested rod - 1/8" mild steel rod

H-920-2 Position Welds - A display showing three beads welded in the vertical down, horizontal and overhead positions.

4-H Welding Project Tips and Suggestions:

- It is suggested that all welds be on 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" or on individual coupons that are about 2" x 4" inch and 1/4" 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-920-3 Welding Article - Any shop article where welding is used in the construction. All plans and a bill of materials must be attached to the article. Protect plans with a cover.

4-H Welding Project Tips and Suggestions:

- 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.