



4-H PROJECT INDOOR EXHIBITS

Superintendent: Kacie Jasper

Premiums in each category: 1st- \$3.00, 2nd- \$2.00, 3rd \$1.00

Age of Exhibitors: For all 4-H exhibitors, the age of the contestant must follow Oklahoma 4-H membership guidelines. *All exhibitors must be 8 years old AND in the 3rd grade by September 1, 2024. This date will determine the age division contestants will compete in.

ELIGIBILITY OF EXHIBITORS

Exhibition in this department is limited to Oklahoma 4-H members who have been enrolled and actively participating in the program for a minimum of 30 days prior to this Fair, and who meet the following requirements:

- Exhibition in this department is limited to Pottawatomie County 4-H members who are active enrolled members in the 4-H online enrollment system. (Active: paid and approved by county extension office.)
- Members should be enrolled in the project area to exhibit.
- The 4-H member should enter the class that matches his/her grade (grade as of September 1 of the 4-H year.) ***If youth are in 3rd grade they must have been 8 years old before September 1*.**
- All exhibits must have been made and completed by the exhibitor during the previous 4-H year and cannot be entered more than one time, except for classes which are collections that are added to in successive years.
- 4-H members who enter crops and horticulture must be able to prove that such crops entered in the 4-H member's name were produced by the member.

ENTRY SUMMARY INFORMATION

- Each county may enter **one** (1) entry per class.
- If exhibitors entry contains more than one piece (ie: two pillowcases, two bookends) please label each piece with exhibitor name, county, and piece number (1 of 2, 2 of 2).

RESPONSIBILITY FOR ALL EXHIBITS

- 4-H exhibits at the Pottawatomie County Free Fair are entered and displayed at the risk of the exhibitor. The 4-H program of Oklahoma State University, in cooperation with the Board of Directors, Pottawatomie County Free Fair, accepts exhibits and will exercise due care to protect them. However, neither the 4-H Program nor the Pottawatomie County Free Fair can accept responsibility for loss or damage to any exhibit due to the conditions imposed by large crowds, the arrangement of buildings in which exhibits are housed or the large number of exhibits. Members who have exhibits of great sentimental and/or monetary value should carefully consider whether such exhibits should be exposed to the hazards of the fair.

COPY WRITTEN MATERIAL AND REFERENCING SOURCES

- All 4-H exhibits should be the original work of the 4-H member. When information is taken from books, publications, magazines or from the internet, it should be expressed in the 4-H members own words. The 4-H member must reference the source of the information by using an asterisk (*) or a number (if more than one) and name the actual source at the end or bottom of paper, poster or educational display following an asterisk or corresponding number in text.
- No copyrighted or trademark protected written or visual material (pictures, photos, drawings, illustrations, etc.) should be used from books, magazines, publications, professional photographers, or from the internet without permission from the original creator. If the 4-H'er applies for and is granted permission to use a copyrighted or trademark protected item, a copy of the permission form or letter needs to be attached to the back of the exhibit and properly cited with an asterisk (*) or number.

SIGNING AND DATING EXHIBITS

- Exhibits should be permanently signed and dated, in an inconspicuous location, if material permits. Some exhibits that should be signed and dated are posters, most expressive arts including fine art, ceramics, woodworking and woodcrafts, herbarium cards, seed boards, forestry exhibits and model rocketry. Judge or judging committee may permanently mark exhibit with fair and year (for example: Fair 2025), if not signed and dated.

EDUCATIONAL DISPLAYS

- All educational displays must have stable, freestanding backs with sides attached. This includes Sec. Q301 and educational displays in specific project areas. Size requirements for all display board is 36" x 48". Educational displays must be 3-dimensional.
- Do not include valuables, food items that will spoil or potentially harmful products (such as aspirin, cleaning products, chemicals, etc.) in any educational display. Neither the Pottawatomie County Free Fair nor the 4-H program can accept responsibility for loss of valuables. Potentially harmful products will be discarded. **Text of displays should be readable from at least 10 ft. away.**
- 1. **Displays in section Q301 MUST include the 4-H Clover or mention 4-H. When using the official clover with H's, the tail should curve to the right and the words 18 U.S.C. 707 must appear under the lower right leaflet, unless poster and clover are hand drawn.** For more information on proper use of the 4-H clover please refer to <https://4h.okstate.edu/educators/clover-and-emblem/index.html>

POSTERS

- All posters must be constructed on poster board 14" x 22" (1/2 of a poster board). They may be horizontal or vertical. Poster may be produced by any medium — watercolor, ink, crayon, acrylic, charcoal, collage, computer, etc. — Posters must be flat. Do not use 3-dimensional pieces on posters. Posters will be judged on 1) educational idea portrayed, 2) public appeal, and 3) creative and original ability presented. Copyrighted or trademarked cartoon characters or other designs must not be used due to copyright restrictions.
- For display purposes, exhibitors are encouraged to laminate all posters or cover them with clear plastic film. **Posters must be signed and dated on the back with a permanent marker before laminating.** If not marked, the judging committee may mark or punch. All posters must be flat (no 3-dimensional posters). **Text of posters should be readable from at least 10 ft. away.**
- **NOTE: Posters in section Q300 MUST include the 4-H Clover or mention 4-H. Posters in other sections/classes are encouraged to but are NOT required to include the 4-H Clover or mention 4-H unless requested in section/class description.**
- **When using the official clover with H's, the tail should curve to the right and the words 18 U.S.C. 707 must appear under the lower right leaflet, unless poster and clover are hand drawn.** For more information on proper use of the 4-H clover please refer to <https://4h.okstate.edu/educators/clover-and-emblem/index.html>

REQUIRED TRADEMARK DESIGNATION FOR USE OF 4-H CLOVER

- When using the official clover with H's, the tail should curve to the right and the words 18 U.S.C. 707 must appear under the lower right leaflet, unless poster and clover are hand drawn. For more information on proper use of the 4-H clover please refer to <https://4h.okstate.edu/educators/clover-and-emblem/index.html>

AWARDS AND DISPLAYING

- Ribbons will be placed to top 6 in each class. Premiums will be paid on the top 3 places in each class as follows: **1st Place: \$3; 2nd Place: \$2; 3rd Place: \$1** unless otherwise stated under the category.
- The 4-H superintendents reserve the right to display only 1st through 10th place exhibits or less as space allows.

COMMUNICATION AND EXPRESSIVE ARTS DIVISION

SECTION Q300 4-H POSTER-ART EXHIBIT

2. Posters in this section must include 4-H Clover or mention 4-H. When using the official clover with H's, the tail should curve to the right and the words 18 U.S.C. 707 must appear under the lower right leaflet, unless poster and clover are hand drawn. For more information on proper use of the 4-H clover please refer to <https://4h.okstate.edu/educators/clover-and-emblem/index.html>

Beginner Division (grades 3-5)

1. 4-H promotional poster designed to recruit 4-H members, volunteers, promote any 4-H event or promote any 4-H project.
2. Poster designed to promote 4-H using the theme "Find your spark in 4-H"
3. Poster recognizing or documenting one of the following: Oklahoma 4-H history during one decade or the evolution of a particular 4-H project area over the decades.

Intermediate Division (grades 6-8)

4. 4-H promotional poster designed to recruit 4-H members, volunteers, promote any 4-H event or promote any 4-H project.
5. Poster designed to promote 4-H using the theme "Find your spark in 4-H"
6. Poster recognizing or documenting one of the following: Oklahoma 4-H history during one decade or the evolution of a particular 4-H project area over the decades.

Advanced Division (grades 9-12)

7. 4-H promotional poster designed to recruit 4-H members, volunteers, promote any 4-H event or promote any 4-H project.
8. Poster designed to promote 4-H using the theme "Find your spark in 4-H"
9. Poster recognizing or documenting one of the following: Oklahoma 4-H history during one decade or the evolution of a particular 4-H project area over the decades.

SECTION Q301 EDUCATIONAL BOOTH DISPLAY

- All grades are accepted in each class.
- Display must focus on **ONE** of the following and be suitable for display at a local business during National 4-H Week or at another time.
- **EXHIBITS IN THIS SECTION MUST PROMINENTLY DISPLAY A 4-H CLOVER OR MENTION 4-H. When using the official clover with H's, the tail should curve to the right and the words 18 U.S.C. 707 must appear under the lower right leaflet, except for hand drawn clovers.** For more information on proper use of the 4-H clover please refer to <https://4h.okstate.edu/educators/clover-and-emblem/index.html>

Class:

1. Educational Booth Display (other than community service or theme "Find your spark in 4-H") Display may be project area, member recruitment, current youth issue, event, etc.
2. Community Service Booth Display – Sharing about a community service that a 4-H member or county 4-H group has done. Should include pictures, examples, and scope of projects. The impact on others will be an added criterion for judging. Project should be the extension of a 4-H project area.
3. Display using the theme "Find your spark in 4-H".

SECTION Q302 4-H PHOTOGRAPHY

- These exhibits consist of photos taken by the individual exhibitors. A photo can be entered only one year. **Individuals can exhibit in only one level.** Level 1 is for members who have beginning skill level, Level 2 is for those who have intermediate skill level, and Level 3 is for those who have advanced skill level. All grades within each level are before September 1 of the current calendar year.
- **DIGITAL PHOTOS may be entered. Adjustments to digital photographs are limited to color and contrast adjustments, cropping, gray scaling, exposure adjustments, and red eye reduction (with the exception of Classes 25 to 28).**
- **PRINTS:** Black and white or color prints may be exhibited. Prints must be no smaller than 4" x 6" and no larger than 5" x 7" (except when panoramic prints are used) for all classes except Classes 5, 10, 14, 18 and 22 where prints may be up to 8" x 10". **Prints should be printed on photo-quality paper (not copy paper). Print quality is taken into consideration by the judges. Photos will be disqualified if in a frame.**
- **TITLES, CAPTIONS AND OTHER REQUIRED INFORMATION:** On the front of the board, there must be a title (i.e. My Trip to the Zoo, or My Favorite Photo) **and** each photo must have a caption giving the viewer more information about the photograph. The title should not be the class description (ie. Digitally adjusted photo) rather a description of the subject of the photos (ie. "My Day at the Zoo"). The back of each board must include the exhibitor's name and county.
- **BOARDS:** Prints must be securely attached to the surface of a single **black or white** (not colored) poster board, foam core, or mat board. Photos will be disqualified if on regular printing paper or cardstock. No double matting, use of multiple layers or more than one color of mat. The entire print must be seen and cannot be masked in any way. **Boards must be 14" x 14" for all classes.**

Level 1: Focus on Photography

Junior Classes – Grades 3-7 (for members who have beginning skill level)

1. Four (4) photos, one from each of the following categories: people, animals, plant life and scenery.
2. Four (4) photos of people doing different things, showing a variety of activities, camera angles and lighting choices.
3. Four (4) otherwise outstanding photos showing common mistakes in picture taking. The caption for each print must correctly identify what is wrong and provide an appropriate solution to prevent the mistake.
4. Series of four (4) photos telling a story or illustrating a single event.
5. Best individual photo made this year.

Senior Classes – Grades 8-12 (for members who have beginning skill level)

6. Four (4) photos, one from each of the following categories: people, animals, plant life and scenery.
7. Four (4) photos of people doing different things, showing a variety of activities, camera angles and lighting choices.
8. Four (4) otherwise outstanding photos showing common mistakes in picture taking. The caption for each print must correctly identify what is wrong and provide an appropriate solution to prevent the mistake.
9. Series of four (4) photos telling a story or illustrating a single event.
10. Best individual photo made this year.

Level 2: Controlling the Image

Junior Classes - Grades 3-7 (for members who have intermediate skill level)

11. Four (4) photos showing good composition, such as placement of subject, framing, contrast or perspective. The caption for each photo or the title of the board must explain the ideas being illustrated.
12. Four (4) action photos showing use of film speed of digital ISO, please include the film speed or digital ISO, shutter speed and aperture (if the camera is adjustable)
13. Four (4) photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of board must explain the ideas being illustrated.
14. Best individual photo made this year.

Senior Classes - Grades 8-12 (for members who have intermediate skill level)

15. Four (4) photos showing good composition, such as placement of subject, framing, contrast or perspective. The caption for each photo or the title of the board must explain the ideas being illustrated.
16. Four (4) action photos showing use of film speed or digital ISO, please include the film speed or digital ISO, shutter speed and aperture (if the camera is adjustable).
17. Four (4) photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of board must explain the ideas being illustrated.
18. Best individual photo made this year.

Level 3: Mastering Photography

All Grades – (for members who have advanced skill level)

19. Four (4) photos showing members' knowledge of one of the following: different lenses, photo lamps, existing light, filters, or special effects. The caption for each photo or the title of the board must explain the idea(s) being illustrated.
20. Four (4) outstanding "people" pictures.
21. Four (4) landscapes or nature photos.
22. Best individual photo taken this year.

DIGITALLY ADJUSTED PHOTOS

Exhibit must include both the original photo labeled "original photo", the digitally adjusted photo labeled "adjusted photo", with a short summary of what was done (cropping, red-eye removal, color or contrast adjustment, gray scaling, exposure adjustment, etc.). Must be on a single black or white poster board, foam core or mat board 14" x 14".

23. Junior (**grades 3-7**)
24. Senior (**grades 8-12**)

Digitally altered photographic illustration taken with a digital camera by the exhibitor - Alterations are beyond common photography techniques of red eye removal, cropping, etc. Exhibit includes a print of the original photograph labeled "original photo", and the digitally altered image labeled "photographic illustration". Must be on a single black or white poster board, foam core or mat board 14" x 14". Attach up to ½ page of written explanation of the alterations to the back of the exhibit.

25. Junior (**grades 3-7**)
26. Senior (**grades 8-12**)

Digitally altered scanned image – Exhibit must include the original image labeled "original image", and the digitally altered image labeled "altered image". Alterations are beyond common photography techniques of red eye removal, cropping, etc. Must be on a single black or white poster board, foam core or mat board 14" x 14". Attach up to ½ page of written explanation of alterations to the back of the exhibit. Trademark images may not be used.

27. Junior (**grades 3-7**)
28. Senior (**grades 8-12**)

SECTION Q303 CREATIVE ARTS

Juniors ---- Grades 3-7

Seniors ---- Grades 8-12

PAINTINGS, DRAWINGS AND OTHER ITEMS THAT ARE TO BE HUNG MUST HAVE A HANGER ATTACHED OR THEY MAY NOT BE DISPLAYED.

Class:

1. Jr. Fine Art: Pencil, charcoal, pastels, chalk, ink
2. Sr. Fine Art: Pencil, charcoal, pastels, chalk, ink
3. Jr. Fine Art: Watercolor
4. Sr. Fine Art: Watercolor
5. Jr. Fine Art: Oil or acrylic
6. Sr. Fine Art: Oil or acrylic
7. Jr. Art Portfolio: Must include at least 5 pieces/pictures of art made by exhibitor - Must be in a 3 ring binder or commercial art portfolio, for added protection youth may utilize page protectors- if art is not available for inclusion photos of art are acceptable.
https://4h.okstate.edu/projects/communication-and-expressive-arts/site-files/docs/visual-arts-general-arts-and-crafts/art_portfolio_help_sheet-a.pdf
8. Sr. Art Portfolio: Must include at least 5 pieces/pictures of art made by the exhibitor - Must be in a 3 ring binder or commercial art portfolio, for added protection youth may utilize page protectors- if art is not available for inclusion photos of art are acceptable.
https://4h.okstate.edu/projects/communication-and-expressive-arts/site-files/docs/visual-arts-general-arts-and-crafts/art_portfolio_help_sheet-a.pdf
9. Jr. Creative Writing: Must be original work, no more than 500 words, typed in 12 point font, double spaced. Entry should be placed in a paper folder with brads. Cover page must be included in front of essay – photos in essay are not permitted
https://4h.okstate.edu/projects/communication-and-expressive-arts/site-files/docs/general-communications/creative_writing_cover_page-a.pdf
10. Sr. Creative Writing: Must be original work, no more than 500 words, typed in 12 point font, double spaced. Entry should be placed in a paper folder with brads. Cover page must be included in front of essay- photos in essay are not permitted
https://4h.okstate.edu/projects/communication-and-expressive-arts/site-files/docs/general-communications/creative_writing_cover_page-a.pdf
11. Jr. Ceramics: Glazed (maximum of one piece)
12. Sr. Ceramics: Glazed (maximum of one piece)
13. Jr. Ceramics: Stained (maximum of one piece)
14. Sr. Ceramics: Stained (maximum of one piece)
15. Jr. Pottery: Original design made from clay using hand molding or on a potter's wheel
16. Sr. Pottery: Original design made from clay using hand molding or on a potter's wheel
17. Jr. Print Process Article: Block printing and other printing methods
18. Sr. Print Process Article: Block printing and other printing methods
19. Jr. Nature Craft: Article made from natural materials including weaving or basket making
20. Sr. Nature Craft: Article made from natural materials including weaving or basket making
21. Jr. Bead Craft Article
22. Sr. Bead Craft Article
23. Jr. Leathercraft: Kit
24. Sr. Leathercraft: Kit
25. Jr. Leathercraft: Original Design
26. Sr. Leathercraft: Original Design
27. Jr. Hand Crafted Wax Candle
28. Sr. Hand Crafted Wax Candle
29. Jr. Paper Craft
30. Sr. Paper Craft
31. Jr. Plastic Craft: Includes but not limited to Lego™ Art. If Lego™ Art is entered, it must be glued

32. Sr. Plastic Craft: Includes but not limited to Lego™ Art. If Lego™ Art is entered, it must be glued
33. Jr. Duct Tape Craft
34. Sr. Duct Tape Craft
35. Jr. Miscellaneous: limited to items that cannot be entered in any other class
36. Sr. Miscellaneous: limited to items that cannot be entered in any other class

***NOTE: Puppets may either be entered in Design and Construction (Jr. class 42 or Sr. class 49) or in Paper Craft depending upon medium and criteria.**

SCIENCE AND TECHNOLOGY DIVISION

SECTION Q304 4-H Technology Exhibits

Juniors – grades 3-7 and Seniors – grades 8-12.

Flat flyer (one-sided) designed by the exhibitor to promote a club or county 4-H educational program or activity. Computer generated flat flyer (8 ½" x 14" or 8 ½" x 11"). Flat flyers should be securely attached to an appropriately sized poster board.

1. Juniors
2. Seniors

Brochure, card or invitation related to 4-H (may be double-, tri-, or four-fold measuring 8 ½" x 11" or 8 ½" x 14 before folding.) Attach two (2) flat copies of the brochure (one side showing the front and the other side showing the back of the brochure) to an appropriately sized poster board no larger than 14" x 22". Attach a large envelope to the back of the poster board and insert a folded copy of the brochure.

3. Juniors
4. Seniors

PowerPoint Presentation related to 4-H (Can be PowerPoint, Google slides or any other presentation program.) Presentation should either promote 4-H or educate about a 4-H project. Presentations should include an official 4-H Clover or mention 4-H. Presentation entry includes a printout of at least five (5) slides and script/presentation notes in a folder or notebook. All PowerPoint presentations should be mounted on a free standing display board not to exceed 3' x 4' when the sides are extended for display.

5. Juniors
6. Seniors

Digital Media for a group or club project - Submit a video (maximum of 3 minutes) designed for social media use on STEM projects. The video must be in an .MP4 format and submitted on a flash drive. Video may only contain first names of the participants and participants must have a signed media release form on file in their county 4-H office.

7. Group Media

STEM Career Poster 4-H members should research careers in STEM before developing their poster exhibit. Posters should highlight the variety of STEM related careers and follow the Technology Exhibit poster guidelines and criteria.

8. Junior Poster - Draw a Scientist
9. Senior Poster - Careers in STEM

Global Positioning Systems (GPS)/Geographic Information Systems (GIS) Exhibits

- 4-H Youth will learn about Geographic Information Systems (GIS) concepts by collecting data on a location, describing the attributes.
- Youth will learn about geospatial technology applications and future career opportunities by working with local government agencies and project partners in their own communities.
- Increased youth involvement in community service and awareness projects that impact local communities by enhancing economic and community development.

Display illustrating how GPS works, including the user, control and space segments of the system.

10. Juniors

Display illustrating how GPS has been used to improve society

11. Seniors

Geocache box. Exhibit would include geocache box with contents, description & photograph of the location in which the box will be located. (Check <https://www.geocaching.com/play> for instructions on placing and describing)

12. Juniors

13. Seniors

Hand drawn map. Map can either be informational or directional. Attach a one (1) page explanation of the purpose for the map.

14. Juniors

15. Seniors

Computer generated map. Map can be either informational or directional. Attach a one (1) page explanation of the purpose for the map.

16. Juniors

17. Seniors

4-H Robotics

- The goal of the 4-H robotics program is for 4-H members to explore science, technology and engineering through designing and building a functioning robot.
- Attach a 3"x 5" index card to each robot/exhibit, explaining:
 - Construction material, how constructed and goal of project.
 - Year in project
 - Grade of Member
 - Whether or not made from kit
 - Other pertinent information
- Each exhibit should have a one (1) page report explaining the function, purpose and construction of the robot.

Programmable or Remote Controlled Robot

18. Juniors

19. Seniors

Display with photographs and explanation of a member developed robot which is not available for exhibit.

20. Juniors

21. Seniors

Group Project Developed by two (2) or more 4-H members working together (Include all 4-H members' information involved on index card)

22. Programmable or Remote-Controlled Robot

23. Display with photographs and explanation of a member developed robot which is not available for exhibit

Engineering Design Challenges

Criteria:

Engineering design challenges are intended to encourage 4-H members to use the Engineering design process to create their own projects. These projects should include an engineering notebook, journal or description which answer the following questions about their project. Projects without an engineering notebook will be judged accordingly. Projects with notebooks will place before projects without notebooks, journals, or descriptions.

- What is the challenge or task of your project (Example: Throw a marshmallow six feet, incorporate technology into clothing, create alternative energy, design and build a rubber band powered car, etc.)
- Draw your design
- How did you test your design?
- What were the results?
- How did you change your design to improve it?
- Did you retest it? Did the results improve?
- Describe your final design and does it work?

Engineering Design Challenges will be judged based on creativity, design, function, and recordkeeping (journal or engineering notebook).

Marshmallow catapult challenge design task

Design a trebuchet-style swing arm catapult. It may be similar to a teeter-totter or swing set. The beam (arm) is able to swing (go up and down). The arm of the catapult must be adjustable from the center to an offset (One side of the beam is longer from center pivot point.). Use at least five (5) different types of materials or parts (craft sticks, brads, dowels, etc.). Use weights and gravity as the power source.

Catapult cannot be any larger than a 3 foot cube (3' X 3' X 3')

Launch a marshmallow at least six (6) feet. A journal or engineering notebook should be included to describe the creation, purpose and function of the device. Explain how you built and tested your catapult. Chart your marshmallow launches.

Reference: National 4-H Curriculum, Junk Drawer Robotics, Level I <https://shop4-h.org/products/junk-drawer-robotics-curriculum-1-give-robotics-a-hand>

24. Juniors

25. Seniors

Alternative Energy Design Challenge

Design and build a device to utilize wind, solar, or water power. Commercially available parts are acceptable but the majority of the project must be homemade by the member. Must fit entirely within a 12-inch cube (12"X12"X12"). A journal or notebook should be included to describe the creation, purpose and function of the device. References for this project may include but are not limited to:

Wind Power

- 4-H Power of Wind Curriculum: <https://shop4-h.org/products/power-of-the-wind-curriculum-youth-guide>

Solar Power

- Solar Powered House Activity <https://shop4-h.org/products/solar-powered-houses-activity-kit>
- Solar Powered Car Activity <https://shop4-h.org/products/solar-powered-car-activity-kit>

26. Juniors

27. Seniors

Wearable Technology Design Challenge

Design a piece of wearable technology. Commercially available parts are acceptable but the majority of the project must be homemade by the member. A journal or notebook should be included to describe the creation, purpose and function of the device. Resources for this project may include but are not limited to:

References:

- WearTec Curriculum Series books 1-4: <https://shop4-h.org/products/weartec-1-circuitry-leaders-guide>
- 28. Juniors
- 29. Seniors

Rubber Band-Powered Vehicle Design Challenge

Design a wheel-driven vehicle, powered only by one rubber band (size #64 approx. ¼" wide by 3½" long by 1/32" thick.), which will transport a one-pound "load" (box of baking soda approx. size: 3½" x 4½" x 2") at least 9 feet (on a smooth flat floor) while remaining within the boundaries of a 3 ft. wide parallel track (marked off with masking tape). Speed is not a criteria.

There are no restrictions on materials, size, weight or number of wheels. However, the only energy source permitted is the elastic energy of one rubber band. Commercially assembled vehicles are NOT permitted. However, commercially manufactured components may be used as parts of the vehicle. The vehicle must be self-starting (i.e., no pushing, external power starts, etc.). Propulsion of the vehicle must be through the wheels (i.e., no propellers, no launching mechanism). Transferring the energy of the rubber band to wheels via gears, fly wheels, etc., is encouraged. No remote-control devices are permitted.

A journal or engineering notebook should be included to describe the creation, purpose and function of the device. Explain how you built and tested your vehicle and if you made any modifications. Chart or graph collected data and explain how you measured improvements in your engineering notebook or journal.

- 30. Juniors
- 31. Seniors

3-D Printed items

Item must be an original design. No commercially purchased items may be entered. Entry must include the 3-D printed item, a copy of the plans and 3-5 photos of project and youth during the printing.

- 32. Juniors
- 33. Seniors

SECTION Q305 SCIENCE DISCOVERY PROJECTS

- The goal of this project and exhibit is to allow 4-H members to:
 - Use the scientific method to gain an understanding of how things work and the variables that affect them.
 - Take an open and creative approach to problem solving.
 - Learn that a successful outcome is based not on personal opinion but on scientific fact.
 - Improve written and visual communication skills
- 4-H members are encouraged to use their 4-H projects as the basis for their scientific research and discovery project. Exhibits should relate to one of the following topics:
 - Behavioral and Social Sciences
 - Biochemistry, Medicine, and Health Sciences
 - Botany and Zoological Sciences
 - Computer Science
 - Earth and Space Sciences
 - Engineering
 - Environmental Sciences
 - Mathematics
 - Physical Sciences

- A few resources for finding project ideas are:
The WWW Virtual Library: Science Fairs - <http://physics.usc.edu/~gould/ScienceFairs/>
Information about Oklahoma Science Fairs - <https://ossef.zfairs.com/>
 - Displays without reports will be judged accordingly. Displays with reports will be placed above those missing reports.
1. Beginning Division (**Grades 3-5**) - A display illustrating the project.
 2. Intermediate Division (**Grades 6-8**) - A display with an accompanying report of approximately two (2) typewritten pages.
 3. Advanced Division (**Grades 9-12**) - A display and a written report about the project that includes an interview with a scientist, science teacher or someone who is knowledgeable about the area that is being studied (Example: a beekeeper could help with bee projects.) Reports should be three (3) to five (5) pages in length.
 4. Team Exhibit (**All Grades**) – Team may include a maximum of three (3) members. - A display and a written report about the project. It is recommended that it include an interview with a scientist, science teacher or someone who is knowledgeable about the area that is being studied (Example: an engineer could help with engineering projects.) Reports should be three (3) to five (5) pages in length.

FAMILY AND CONSUMER SCIENCES DIVISION

SECTION Q306 - Design and Construction

- The skill mastery sheet (<https://4h.okstate.edu/projects/design-and-construction/curriculum-and-patterns.html>) is an educational tool to guide project work. Click Sample Technique Cards to find instruction for many of the techniques noted in the skill sheets (i.e. facings, zippers, hems, fasteners, etc.).
- Instruction Sheets for the projects listed can be found at: <https://4h.okstate.edu/projects/design-and-construction/project-guide-sheets.html>
- Fair exhibits have been carefully selected and directed for members to investigate and learn specific skills/information and to demonstrate mastery of these skills/information.
- The end-product/exhibit is being evaluated on the skills “learned/mastered.” The skill sheet serves as the member’s “personal reflection” and communicates to the judge what was learned. Why is this important? Because in 4-H, the reflection and application of what was learned is more important than the end product/exhibit.
- The skill sheet is to be used as a planning tool. It is important that each 4-H member take responsibility for the life skill of “learning to learn.” This may require members, leaders and educators to look up terms and learn techniques as part of the educational process.
- Resources, instructions and project guides are posted online. Members are encouraged to seek out other valid resources which teach proper technique and knowledge in the areas of design and construction.
- *General Skills to be mastered in project/product in ADC, IDC and HTDC:*
 - **Structural Design:** Construction technique, size, form, color and texture suited to the materials and product end use.
 - **Elements of Design:** The finished product illustrates the member is learning or “mastering” the basic elements of design - line, shape or form, texture, color, and space.
 - **Principles of Design:** The finished product illustrates an awareness and application of the principles of harmony, proportion, balance, rhythm and emphasis adding dimension, interest and/or appeal to the finished product.
 - **Surface Design:** This is any lines, shapes, colors, textures, or materials applied to the product or item’s design that creates an emotional or personal quality, individuality and creative expression without disturbing initial/end purpose/how it is used. Design is that “*something*” which makes the item unique to the individual designer.

- **Reports/Descriptions/Expense Sheet/etc.** – Exhibits requiring a report/description/expense sheet of any kind, can be typed or neatly/legible handwritten. Report should be one-two pages. If typed, it must be double spaced using a minimum of 12-point font. **Report MUST be SECURELY attached to the exhibit.**
- Hangers will not be returned.

APPAREL DESIGN & CONSTRUCTION - (ADC)

Grades 3-5 - Review section Q306 general instructions. Project must have at least two (2) skills/techniques identified as appropriate for the ADC Level 1 or Level 2 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit.

1. **Simple Tops** (shirt, tank top, t-shirt, vest, poncho, costume, or any other **similar** simple top). No lined garments. Exhibits in classes 01 and 02 are to be SIMPLE. Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings Level 1 Mastery Sheet: Buttons, Casing, Hem, Seams, Seam Finishes.
2. **Simple Bottoms** (shorts, capris, pants, skirts, costume, or any other **similar** simple bottom). Garments are not to be lined, have pockets or a zipper. Exhibits in classes 01 and 02 are to be SIMPLE. Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings Level 1 Mastery Sheet: Hem, Seams, Seam Finishes, Waistband.
3. **Simple Lined or Unlined One-piece garment with one or one or more: pocket, waistband or facing** (top, bottom, robe, jacket, dress, jumpsuit, vest, poncho/shawl costume, or any other **similar** one-piece garment). Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 1 or 2 Mastery Sheet: Facing, Pocket, Waistband, Zipper, Interfacing, Seam Finish. Waistband can be a flat front band and elastic back.
4. **Non-human Apparel** (doll, pet or livestock garment/costume, or any other **similar** item)
5. **Simple Sewn Fashion Accessory** (sewn hat, scarf, bag, wallet, purse, mittens, string-pack or textile-based jewelry, or any other **similar** sewn fashion accessory)
6. **Knitted/Crocheted Fashion Accessory** (knitted/crocheted hat, scarf, bag, wallet, string-pack, or textile-based jewelry, or any other **similar** knitted/crocheted fashion accessory). Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 1 or Level 2 Mastery Sheet: Crochet, Knitting.
7. **“Recycled/Upcycled” Apparel/Garment/Fashion Accessory** with before and after (garment/accessory being worn) pictures and a written description of the design and construction process/steps the member undertook and reason(s) for “redesign.” See Frugal Fashion Instruction Sheet and other OK Recycle and Redesign resources.

**** See Class 20 All Grades: Apparel Design Project Portfolio**

Grades 6-8 - Review section Q306 general instructions. Project must have at least two (2) skills/techniques identified as appropriate for the ADC Level 2 or Level 3 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit.

8. **Blouse/Shirt with sleeves and closure.** Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 3 Mastery Sheet: Buttons and Buttonhole, Fasteners, Sleeves, Zipper. No jackets, coats or vests.
9. **Lined or Unlined Bottom with zipper and pocket(s)** Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 3 Mastery Sheet: Interfacing/Underlining, Lining, Pockets, Zippers. Pocket style must be one described on the skill sheet.
10. **Lined or Unlined Two-piece garment** (coordinating top and bottom, jacket/vest with bottom/dress, PJ's, uniform, costume, or any other **similar** two-piece coordinate). Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 3 Mastery Sheet: Buttons and Buttonhole, Fasteners, Interfacing/Underlining, Lining, Pockets, Sleeves, Zipper.
11. **Sewn Fashion Accessory** with closure/fastener and seams. (Examples: hat/earmuffs, wallet, bag/purse/backpack, costume accessory (such as gloves, apron, etc.), textile-based jewelry, or any **similar** sewn accessory. See specific skills/techniques listed under the following headings Level 3 Mastery: Buttons and Buttonholes, Fasteners, Seams, and Seam Finish which may apply.

12. **Fashion Garment or Accessory** created by Knitting/Crocheting/Tatting/Felting or similar technique. No accessory is to be constructed from commercial/purchased fabric (woven, knit, felt, etc.) Knitted or crocheted exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 3 Mastery Sheet: Crochet and/or Knitting.
13. **"Recycled/Upcycled" Apparel/Garment/Fashion Accessory** with before and after (garment/accessory being worn) pictures and a written description of the design and construction process/steps the member undertook and reason(s) for "redesign." See Frugal Fashion Instruction Sheet and other OK Recycle and Redesign resources.

**** See Class 20 All Grades: Apparel Design Project Portfolio**

Grades 9-12 - Review section Q306 general instructions. Project must have at least two (2) skills/techniques identified as appropriate for the ADC Level 3 or Level 4 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit.

14. **One-piece lined or unlined garment** (pants, skirt, coat, jacket, dress, jumpsuit, uniform, formalwear, costume, or any other **similar** garment) with two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 4 Mastery Sheet: Collar/Cuff, Buttons and Buttonholes, Fasteners, Hem, Interfacing/Under lining/Interlining, Lining, Seam, Seam/Finish, Zipper.
15. **Two-piece lined or unlined ensemble/coordinate** (coat/jacket/vest/shirt/blouse with dress/pants/slacks/skirt/etc., suit, costume, or any other **similar** two-piece coordinate with two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 4 Mastery Sheet: Collar/Cuff, Buttons and Buttonholes, Fasteners, Hem, Interfacing/Under lining/Interlining, Lining, Seam, Seam/Finish, Zipper.
16. **Sewn Fashion Accessory** with closure/fastener and seams. (Examples: hat/earmuffs, wallet, bag/purse/backpack, costume accessory (such as gloves, apron, etc) textile-based jewelry, or any **similar** sewn accessory. See specific skills/techniques listed under the following headings Level 3 Mastery: Buttons and Buttonholes, Fasteners, Seams, and Seam Finish which may apply.
17. **Fashion Garment or Accessory** created by Knitting/Crocheting/Tatting/Felting or similar technique. No accessory is to be constructed from commercial/purchased fabric (woven, knit, felt, etc.) Knitted or crocheted exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 4 Mastery Sheet: Crochet and/or Knitting.
18. **Functional Fashion Accessory or Garment designed for Special Needs.** *"Special Needs" being the individual requirements of a person with a mental, emotional, physical disability or disease."* **MUST** include a description of whom it was made for, why the need, any special adaptations per the individuals request and any other pertinent information supporting the finished product. (Examples of fashion accessories or garment: apron/tidy-top; garment adaptation; mastectomy pillow; cancer cap/hat; slippers/shoes; wheelchair - coat, gloves, backpack, cell phone caddy; etc. This exhibit is for fashion accessories and garments worn by the person. See IDC class 40 for other special needs item.) See Citizenship through Service Learning and Sewing for Special Needs instructions.
19. **Recycling/Upcycling Apparel on a Budget** – Focus is on the skill/technique mastery applied to the recycling/upcycling of a garment with a budget of \$10. Must include an expense sheet for any supplies/garments purchased. In kind or on hand supplies (thread, fabric/trim scraps, buttons, interfacing, etc.) used in the design and construction are also to be listed on the expense sheet. Exhibit must include before and after (garment being worn) pictures and a written description of the design and construction process/steps the member undertook. See Frugal Fashion Instruction Sheet and other OK Recycle and Redesign resources.

**** See Class 20 All Grades: Apparel Design Project Portfolio**

All Grades - ADC

20. **All Grades: Apparel Design Project Portfolio:** A portfolio is a great record keeping tool. It will be a valuable source for ideas and future projects, a place to share any project work done in ADC and provide a place to show samples of new techniques or knowledge explored in ADC. It is a notebook with three (3) sections – 1) Projects/Products, 2) Sample Technique Pages and 3) Creative Inspirations and Ideas. See Design Portfolio instructions. All Portfolios, regardless of grade, will be judged together.

INTERIOR DESIGN & CONSTRUCTION - (IDC)

IDC project must be made largely from a textile product unless otherwise stated. A textile is a flexible material made of fiber/thread/yarn. Textiles are formed with various methods including weaving, knitting, crocheting, knotting or felting. Other words for textiles are cloth and fabric.

Grades 3-5 - Review section Q306 general instructions. Project must have at least two (2)

skills/techniques identified as appropriate for the ADC Level 1 or Level 2 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit. The following headings on the Mastery Sheets are just a few examples of skills/techniques which apply to many of the projects listed in IDC: Buttons, Casing, Gathering, Hem, Seam, Seam Finish, Buttons and Buttonhole, Crochet, Darts, Facing, Fasteners, Interfacing, Knitting, Pleats, and Zipper.

21. **Home Accent Kitchen:** apron, food caddy/warmer, appliance cover, message center/board, simple curtains, tablecloth, simple table runner, hand/dish towel, potholders, hot pad, lunch bag, (1) placemat, (2) napkins, or any other **similar** item for the kitchen. *All exhibits should illustrate some skill mastery of hand or machine sewing techniques*
 22. **Home Accent Bedroom:** Examples: two pillowcases, two coordinating pillows, pair of curtains (no commercially produced linens), or any combination of **two** coordinating pieces (i.e., blanket/quilt with binding, lamp shade, lap desk, rug-latched/woven/braded/etc., painted floor cloth, any other item} for the bedroom).
 23. **Simple Storage Bag without zipper:** laundry, jewelry, cosmetic/toiletry/shaving/pencil, book/electronic cover, or any other **similar** bag for home/school/office/shop/vehicle/exercise/hobby/barn/etc. No fashion accessory type bags.
 24. **Home Accent Storage:** bucket caddy, hanging storage unit, under-bed storage, basket liners, storage box, locker storage, scrapbook cover, or any other **similar** item. No bags.
 25. **Seasonal Décor sewn from fabric:** table runner, (1) placemat with napkin, wall hanging, yard flag/banner/windsock, centerpiece, decoration, or any other **similar** item, sewn by hand or machine stitching. **This class is not intended for full size quilts/blankets which do not fit “seasonal décor.”**
 26. **Recycled/Upcycled Furniture –** Painted, stained, refinished, decoupage, tiled or upholstered furniture, or any other appropriate technique not stated to recycle/repurposed a piece of furniture. ***Purchasing an unfinished piece of furniture does not qualify as recycling/repurposing.*** MUST include before and after (furniture displayed, showing how it was designed to fit a room’s décor) photos, a description of the process - inspiration/design process, who it was made for, why the need, any special considerations, or any other pertinent information supporting the finished product. See Recycle and Redesign instruction sheet.
- ** See Class 39 All Grades: Special “Needs” Accessory
** See Class 40 All Grades: Seasonal Décor non fabric
** See Class 41 All Grades: Interior Design Project Portfolio

Grades 6-8 - Review section Q306 general instructions. Project must have at least two (2)

skills/techniques identified as appropriate for the ADC Level 2 or Level 3 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit. The following headings on the Mastery Sheets are just a few examples of skills/techniques which apply to many of the IDC projects listed: Buttons and Buttonhole, Casing, Crochet, Darts, Facing, Fasteners, Gathering, Hem, Knitting, Pleats, Seam, Seam Finish, Zipper, Applique, Interfacing/Underlining, Lining, Pockets, Staystitching, Trim(s), Top Stitching and Zipper.

27. **Design Storyboard –** For an “Ultimate/Ideal” Room. Include color scheme, wall treatment, floor treatment, floor plan, etc. Exhibit will consist of a multimedia presentation, notebook, or story board (matte or foam core board 20” x 15”) with above items and a description of what was learned. Project can include but not limited to pictures, samples, diagram of room arrangement, drawings, narration, cost comparison of supplies, arrangements, and budget/cost, etc. for project. See Storyboard instruction sheet.
28. **Home Accent Kitchen:** apron, food caddy/warmer, appliance cover, message center/board, simple curtains, tablecloth, simple table runner, hand/dish towel, potholders, hot pad, lunch bag, (1) placemat, (2) napkins, or any other **similar** item for the kitchen. *All exhibits should illustrate some skill mastery of hand or machine sewing techniques*

29. **Home Accent Bedroom:** Examples: two pillowcases, two coordinating pillows, pair of curtains (no commercially produced linens), or any combination of **two** coordinating pieces (i.e., blanket/quilt with binding, lamp shade, lap desk, rug-latched/woven/braded/etc., painted floor cloth, any other item} for the bedroom). Added to beginning level new class 22
30. **Storage Bag with some type of closure other than drawstring:** laundry, jewelry, cosmetic/toiletry/shaving/pencil, gym/tool/equipment/sewing bag, book/electronic/computer cover, garment bag, or any other **similar** bag for home/school/office/shop/vehicle/exercise/hobby/barn/etc. No fashion accessory type bags.
31. **Home Accent Storage:** bucket caddy, hanging storage unit, under-bed storage, basket liners, storage box, scrapbook cover, or any other **similar** item
32. **Seasonal Décor sewn from fabric:** table runner, (2) placemats with napkins, wall hanging, yard flag/banner/windsock, centerpiece, decoration, or any other **similar** item, sewn by hand or machine stitching. **This class is not intended for full size quilts/blankets which do not fit “seasonal décor.”**
33. **Recycled/Upcycled Furniture –** Painted, stained, refinished, decoupage, tiled or upholstered furniture, or any other appropriate technique not stated to recycle/repurposed a piece of furniture. ***Purchasing an unfinished piece of furniture does not qualify as recycling/repurposing.*** MUST include before and after (furniture displayed, showing how it was designed to fit a room’s décor) photos, a description of the process - inspiration/design process, who it was made for, why the need, any special considerations, or any other pertinent information supporting the finished product. See Recycle and Redesign instruction sheet.
- ** **See Class 39 All Grades: Special “Needs” Accessory**
- ** **See Class 40 All Grades: Seasonal Décor non fabric**
- ** **See Class 41 All Grades: Interior Design Project Portfolio**

Grades 9-12 - Review section Q306 general instructions. Project must have at least two (2) skills/techniques identified as appropriate for the ADC Level 3 or Level 4 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit. The following headings on the Mastery Sheets are just a few examples of skills/techniques which apply to many of the projects listed: Applique, Buttons and Buttonhole, Bias Tape, Couture Technique/Historic Technique, Crochet, Darts, Facing, Fasteners, Hem, Interfacing/Underlining, Knitting, Lining, Mitered Corners, Pleats, Pockets, Seam, Seam Finish, Staystitching, Trim(s), Top Stitching and Zipper.

34. **Design Storyboard –** For an “Ultimate/Ideal” Room. Include color scheme, wall treatment, floor treatment, floor plan, etc. Exhibit will consist of a multimedia presentation, notebook, or story board (matte or foam core board 20” x 15”) with above items and a description of what was learned. Project can include but not limited to pictures, samples, diagram of room arrangement, drawings, narration, cost comparison of supplies, arrangements, and budget/cost, etc. for project. See Storyboard instruction sheet.
35. **Home Accent Living/Family room-** any combination of **two-piece coordinates** for the living/family room (slipcovers, lined or unlined curtains/drapes/shades, pillows, lap throw/lap quilt, remote caddy, ottoman, lamp shade, fireplace mantel scarf, doily, or any other **similar** item). No full-size quilts, full size quilts would be exhibited in classes 54 or 55.
36. **Home Accent Outdoors/Patio/Camping –** any combination of a two-piece coordinate (picnic/BBQ accessories, patio furniture cushions/covers, shades, (1) placemat with napkin (this is a “set” and does not count as a two-piece coordinate), utensil/condiment caddy, insulated carrier, picnic blanket, outdoor sling chair, hammock, sleeping bag, or any other **similar** item not stated for outdoors/patio/camping.
37. **Recycled/Upcycled Furniture –** Painted, stained, refinished, decoupage, tiled or upholstered furniture, or any other appropriate technique not stated to recycle/repurposed a piece of furniture. ***Purchasing an unfinished piece of furniture does not qualify as recycling/repurposing.*** MUST include before and after (furniture displayed, showing how it was designed to fit a room’s décor) photos, a description of the process - inspiration/design process, who it was made for, why the need, any special considerations, or any other pertinent information supporting the finished product. See Recycle and Redesign instruction sheet.

38. **Seasonal Décor sewn from fabric:** table runner, (2) placemats with napkins, wall hanging, yard flag/banner/windsock, centerpiece, decoration, or any other **similar** item, sewn by hand or machine stitching. **This class is not intended for full size quilts/blankets which do not fit “seasonal décor.”**

** See Class 39 All Grades: Special “Needs” Accessory

** See Class 40 All Grades: Seasonal Décor non fabric

** See Class 41 All Grades: Interior Design Project Portfolio

All Grades - IDC

39. **Functional Home Accessory design for Special “Needs”** – *“Special Needs” being the individual requirements of a person with a mental, emotional, physical disability or disease.* MUST include a description of who it was made for, why the need, any special adaptations per the individuals request and any other pertinent information supporting the finished product. (Examples of housing accessories for special needs: sensory swing/activity station; fidget quilt/blanket/mat; bedding/pillows/lap blanket; weighted/pressure/gravity blanket; bed/chair/walker caddy; bath or kitchen accessory; bedrail; storage; etc.) See Citizenship through Service Learning and Sewing for Special Needs instructions.
40. **Seasonal Décor non fabric/textile:** wall hanging, centerpiece, decoration, or any other **similar** item not stated. **Exhibit is not to be constructed primarily from fabric or any textile-based product. It can have some textiles (i.e., lace, ribbon, buttons, etc.)**
41. **Interior Design Project Portfolio:** A portfolio is a great record keeping tool. It will be a valuable source for ideas and future projects, a place to share any project work done in IDC and provide a place to show samples of new techniques or knowledge explored in IDC. It is a notebook with three (3) sections – 1) Projects/Products, 2) Sample Technique Pages and 3) Creative Inspirations and Ideas. See Design Portfolio instructions. All Portfolios, regardless of grade, will be judged together.

HOBBIES/TEXTILE DESIGN AND CONSTRUCTION - (HTDC)

HTDC projects are made from a textile product created by the exhibitor, unless otherwise stated. A textile is a flexible material made of fiber/thread/yarn. Textiles are formed with various methods including weaving, knitting, crocheting, knotting or felting. Other words for textiles are cloth and fabric.

- Grades 3-6 - Review section Q306 general instructions. Project must have at least two (2) skills/techniques identified as appropriate for the ADC Level 1 or Level 2 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit. See sample technique cards for some of the HTDC techniques.**
42. **Simple Sewn Stuffed animal, doll or puppet with both hand and machine stitching techniques.** *Focused on showing technique mastery/what was learned constructing the finished product.*
43. **Decorative Textile Technique:** Skill technique(s) being mastered/learned - screen printing, transfer printing, fabric pens, tie dye, batik, stenciling, block printing or a **similar** method applied to a textile foundation such as a piece of clothing, fashion accessory or home décor purchased or sewn by the exhibitor. *Any skill technique listed in classes 44-47 are not to be exhibited in this class. Focus is on the 1) mastery of one or more decorative textile technique, 2) creativity, and 3) mastery of the use of the elements and principles of design.*
44. **Textile Fabric Creation:** Skill technique(s) being mastered/learned - weaving (beading or textile), latch-hook, braiding, macramé, knitting, crochet, felting, basket weaving or a combination of one of these techniques to create a textile. “Textile” defined as any woven, looped or felted thread or fibre. *Focus is on 1) the mastery of one or more defined textile technique(s) used to complete a finished product 2) creativity and 3) master of the use of the elements and principles of design.* Examples: toy/game (rug for doll house, doll, ball, etc.), home décor (doily, table scarf, pillow, coaster, wall hanging, plant hanger, small basket, linen - dish cloth, scrub, towel, pillow cover, etc.), clothing/fashion accessory (hat, scarf, purse/bag, jewelry, etc.) or **similar** small item. *Any skill technique listed in classes 43, 45-48 are not to be exhibited in this class.*
45. **Needle Art by Hand:** Skill technique(s) being mastered/learned - hand embroidery, counted cross-stitch, needlepoint, crewel embroidery, needle punch or smocking applied to towel, pillowcase, garment, home accessory. Pictures must be framed. Base/foundation for needle art can be purchased or sewn by the exhibitor. *Focus is on 1) the mastery of one or more “hand” needle art technique(s), 2) creativity, and 3) master of the use of the elements and principles of design.*

46. **Needle Art by Machine:** Simple machine embroidery, cross stitch/decorative stitches, or applique applied to small decorative items, home accessories, towel, pillowcase, garment, picture, flag, banner, windsock, etc. Base/foundation for needle art can be purchased or sewn by the exhibitor. *Focused on 1) the mastery of machine created needle art techniques, 2) creativity, and 3) master of the use of the elements and principles of design. NO full size quilts.*
47. **Machine Pieced or Appliquéd Item** –Skill technique(s) being mastered/learned is machine piecing and/or applique in the creation of a “textile/fabric. From the piece, design and construct apparel, fashion accessory, or home décor item. *Focus is on 1) the mastery of one or more “machine pieced or appliqued technique(s)”, 2) creativity, and 3) master of the use of the elements and principles of design.* Examples might include picture or wall art, pillow, bag, doll quilt, flag, banner, windsock, etc. **NO full size quilts.**
48. **Repurposed Textile Creation:** Item made from **repurposed textile** material/product which **can be worn/carried or used in the home.** MUST include before and after (a picture being worn or displayed, showing how it was designed to fit room décor) photos, a description of the process - inspiration/design process, who it was made for, why the need, any special considerations, or any other pertinent information supporting the finished product. *Focused on 1) appropriate use of repurposed textile, 2) quality of end product, 3) creativity, and 4) application of the elements and principles of design.* Attach See Recycle and Redesign instruction sheet.
- ** **See Class 57 All Grades: Hobbies and Textiles Design Project Portfolio**
- ** **See Class 58 All Grades: Quilts of Valor Community Service**

Grades 7-12 - Review section Q306 general instructions. Project must have at least two (4) skills/techniques identified as appropriate for the ADC Level 3 or Level 4 project work. Some classes have specific skills/techniques which must be incorporated into the exhibit. See sample technique cards for some of the HTDC techniques.

49. **Stuffed animal, doll or puppet** with a minimum of two (2) hand and two (2) machine sewing techniques (i.e., embroidered/appliqued/textile painted facial features, hair constructed from yarn/floss/fur, movable parts (arm, mouth, legs, etc.), use of fake fur, or any other **similar combination of techniques** showing mastery of skill/technique applied to the finished product.
50. **Decorative Textile Technique:** Create a piece of fabric **using two (2) or more decorative textile techniques** described in class 43. From the piece of fabric, design and construct apparel, fashion accessory, or home décor item. *Any skill technique listed in classes 51-56 are not to be exhibited in this class. Focus is on the 1) mastery of technique, 2) the creative and appropriate blending of two or more decorative textile techniques, 3) the fabric/trim fittingly showcased in a finished product, and 4) master of the use of the elements and principles of design.*
51. **Textile Fabric Creation:** Design and construction of an original textile [fabric or trim] **using at least two (2) techniques** described in class 44. Additional techniques might include but are not limited to hand spinning, cotton linter, and tatting. From the textile fabric, design and construct apparel, fashion accessory, or home décor item. *Focus is on 1) the mastery of two or more textile technique(s) used to produce a textile, 2) creative and appropriate use of the “textile” in finished product, and 3) mastery of the use of the elements and principles of design. Any skill technique listed in classes 50, 52-56 are not to be exhibited in this class.*
52. **Needle Art by Hand:** Two (2) or more of these “hand” technique(s). Techniques include but not limited to embroidery [floss, yarn (crewel) or ribbon], cross-stitch, needlepoint, needle punch, smocking, Trapunto quilting, hand quilting, or similar techniques. Base/foundation for needle art can be purchased or sewn by the exhibitor. *Exhibit must be a finished product, ready to display/use. Focus is on 1) the mastery of two or more “hand” needle art technique(s), 2) creativity, and 3) a mastery of the use of the elements and principles of design. This class is not intended for pieced quilts which do not fit the criteria described.* A pieced quilt would be exhibited in class 54 or 55.

53. **Needle Art by Machine:** Two (2) or more of these “machine” techniques: original free motion embroidery/thread painting, “modified” commercial/software-based embroidery design (must *describe modification(s) on skill mastery sheet*), Trapunto quilting, quilting, applique, or other advanced needle art technique(s) applied to clothing, fashion accessory or home/school/office décor. Base/foundation for needle art can be purchased or sewn by the exhibitor. *Focus is on 1) the mastery of two or more “machine” created needle art techniques, 2) creativity, and 3) a mastery of the use of the elements and principles of design.* **This class is not intended for pieced quilts which do not fit the criteria described.** A pieced quilt would be exhibited as class 54 and 55.
 54. **Hand Pieced and/or Hand Appliquéd Item finished with Hand quilting.** Piecing and/or applique and quilting **MUST have been done by hand, not by machine.** Examples might include picture or wall art, pillow, bag, doll quilt, table runner, lap robe, etc. *Focus is on 1) the mastery of “hand work,” 2) creativity and 3) the mastery of the use of the elements and principles of design.*
 55. **Machine Pieced and/or Machine Appliquéd Item finished with Machine Quilting.** Quilting must be done by the exhibitor. Examples might include picture or wall art, pillow, bag, doll quilt, lap robe, table runner, etc. *Focus is on 1) the mastery of one or more “machine pieced or applied technique(s),” 2) creativity, and 3) mastery of the use of the elements and principles of design.*
 56. **Repurposed Textile Creation: Item made from repurposed textile material/product which can be worn, used in the home, at school, in the office, on the job, car/boat/vehicle, etc.** MUST include before and after (a picture being worn or displayed, showing how it was designed to fit room décor) photos, a description of the process - inspiration/design process, who it was made for, why the need, any special considerations, or any other pertinent information supporting the finished product. *Focused on 1) appropriate selection of textile, 2) appropriate construction techniques for end use, 3) creativity, and 4) the use of the elements and principles of design.* See Recycle and Redesign instruction sheet.
- ** See Class 57 All Grades: Hobbies and Textiles Design Project Portfolio
- ** See Class 58 All Grades: Quilts of Valor Community Service

All Grades - HTDC

57. **Hobbies and Textiles Design Project Portfolio:** A portfolio is a great record keeping tool. It will be a valuable source for ideas and future projects, a place to share any project work done in HTDC and provide a place to show samples of new techniques or knowledge explored in HTDC. It is a notebook with three (3) sections – 1) Projects/Products, 2) Sample Technique Pages and 3) Creative Inspirations and Ideas. See Design Portfolio instructions. All Portfolios, regardless of grade, will be judged together.
58. **Quilts of Valor Community Service** – Group or individually constructed quilt, constructed for the express purpose of being presented to a Veteran as part of the Quilts of Valor program. When available, attach the presentation script used in the Awards Ceremony or a copy of the report submitted to Quilts of Valor (<https://www.govf.org/take-action/report-a-quilt-of-valor-award/>). Pictures of the presentation welcome. Be sure to have the veteran’s approval to use their picture for display.

SECTION Q307 BABYSITTING/CHILD CARE

- Please reference the 4-H Military Partnership guide for Babysitting, updated in 2020. <https://4-hmilitarypartnerships.org/resources/educator-resources/youth-babysitting> for more information

Junior (Grades 3-7)

1. **Baby Book** - Any practical size, minimum of five (5) pages covering at least 9 to 10 months of development. Includes photographs, drawings mementos, and comments on developmental milestones. Must be clear that 4-H'er has contributed child development information to book. Baby books prepared earlier by parents may not be entered unless 4-H'er reworks the information. Handwriting should be the youth preparing the exhibit not an adult. See Unit One, page 13. Do not confuse with Class 5, Children's Book.

2. **Puzzles Help Children Learn** - Any size. Two (2) puzzles developmentally appropriate for children at two (2) distinct age and ability levels. Each puzzle must have its own storage container. Puzzles must be sturdy and covered so they can be cleaned with damp cloth. Describe the child for whom each puzzle would be appropriate by giving child's age, interest, and ability. Puzzles should be suitable for either boys or girls. Do not indicate that a puzzle is for boys or girls only. See Unit One, Page 13. Commercially made puzzles are not eligible.
3. **Child Care Poster** - Must be 14" x 22" and must be permanently signed and dated on the back prior to lamination. Judging committee may mark or punch if not marked. Text of poster should be visible for at least 10 ft. away. Choose one of these topics to develop poster: Behavior and Guidance--Include pictures and fact about child development. (See Unit One, Pages 14-15 and No. 706); Safety Risks and Procedures--include common safety risks that a babysitter needs to be aware of and procedures to address the safety issue (See No. 575, Pages 4-7 Unit 1, pages 16-17; Unit 2, Pages 28-29; 4-H Army Child & Youth Services Babysitting Student Guide, pages 25-44); Ages and Stages of Development (No 575, page 10, 4-H Army Child & Youth Services Babysitting Student Guide, Pages 49-50)
4. **Basic First Aid Kit** - Create a basic first aid kit from scratch (not a purchased kit) that includes the basic supplies to take care of small accidents such as bumps, scrapes, stings, and sprains. Include an emergency contact list in the first aid kit that includes but is not limited to: Emergency numbers for police, fire department, poison control, veterinarian, etc. Include a supply list and the cost to put the kit together. The kit should be in a container with a lid or zipper closure. Make sure there is a label on the kit that identifies it as a "First Aid Kit." (See 4-H Army Child & Youth Services Babysitting Student Guide, pages 37-41)

Senior (Grades 8-12)

5. **Children's Book** - Written, illustrated and constructed by 4-H'er. May be written for a specific with text relating to that child or for children of certain age range. Indicate appropriate age range. Construction paper, computer print-out, cloth or poster board may be used. Illustrations may be drawn, photographs, appliques, magazine pictures or reassembled from other books. See no. 707, Books for Children. Do not confuse with Class 1, Baby Book.
6. **Surprise Suitcase** - Fill suitcase with homemade or store bought items for children you baby-sit. Could include books, puzzles, games, play dough, balls, and costumes. Indicate appropriate age child to use each item. Include records of how children have responded to materials. Package in suitcase that can be taken to the home. See No. 722, Child Care Kit. May include commercial puzzles. Contents need to be in a suitcase or a container with a lid.
7. **Create a Game** - Create a board game or card game to teach a specific topic to a child. Examples might include but are not limited to: Hygiene practices, exercise and fitness, safety, etc. Game boards must be 14" x 22" and must be permanently signed and dated on the back prior to lamination. Make sure to laminate game boards, cards or any pieces made of paper so that they are durable. Include written instructions of the rules of the game. Note in the instructions the age appropriateness of the game.

HEALTHY LIVING AND NUTRITION DIVISION

SECTION Q308 4-H FOOD SCIENCE & NUTRITION FAIR EXHIBITS

- Criteria for evaluating educational displays and posters include:
 - Originality of Idea — 20 points
 - Educational Value — 50 points
 - Display Value — 30 points
- All food products must be on a paper plate and in a sealed plastic bag. The superintendent will only exhibit a slice of cake or bread and one cookie, muffin or roll of all exhibits and will dispose of all excess food.
- 4-H'ers may use recipes indicated in the 4-H Foods manuals or any other recipe that fits the exhibit requirements. Bread machines may be used for the bread exhibits but bread must be made from scratch - no mixes.

- Canned foods should be placed in colorless, standard canning jars such as those made by Kerr, Ball, etc., and properly sealed with two (2) piece lids (no paraffin on jams and jellies). Other types of jars will be rejected. Judges will remove the screw-bands at time of judging. Labels should be neat and plainly written. Jars of jams and jellies being considered for ribbons may be evaluated for taste in addition to traditional attributes.
- Resources can be found at: <https://4h.okstate.edu/events/okc-tulsa-state-fair/index.html> and <https://4h.okstate.edu/projects/nutrition-health-wellness/index.html>

FOOD PREPARATION EXHIBITS

LEVEL TWO – Grades 3-5

1. Three (3) Muffins
2. Three (3) Rolled Biscuits
3. Three (3) Baked Drop Cookies (no shaped cookies such as snickerdoodle or peanut butter)

LEVEL THREE – Grades 6-8

4. One-half loaf of any yeast bread (not a sweet dough) made by hand or in a bread machine
5. Three (3) yeast cinnamon rolls (no icing)
6. Three (3) rolled sugar-type cookies (no icing; no gingerbread recipes)

LEVEL FOUR – Grade 9-12

7. One-half loaf or portion of breads from another culture. Include a one (1) page story on how this bread fits into that culture and its nutritional contribution
8. One-half of one 8" or 9" layer un-iced cake (no angel food or chiffon)
9. Two-crust fruit pie – 9" or 10" disposable pie pan. Crust and filling must be made by exhibitor.

FOOD PRESERVATION EXHIBITS

- Jar rings should be left on for display. Home canned food entries to be presented in standard jars made for home canning, with a raised pattern or lettering, clear, uncolored glass and two-piece lids.

LEVEL TWO – Grades 3-5

10. One (1) pint or half (½) pint jar of jam or jelly processed in boiling water canner
11. Two (2) pieces of fruit leather
12. One (1) pint or half (½) pint of salsa/picante sauce

LEVEL THREE – Grades 6-8

13. One (1) pint jar cucumber pickles
14. One (1) pint or quart of any single canned fruit (not pickled)
15. Dried Fruit (½ cup of a single dried fruit). Display in a sealed plastic sandwich/freezer bag

LEVEL FOUR – Grades 9-12

16. One (1) pint or quart jar pressure canned vegetables (no tomatoes or pickles)
17. One (1) quart or one (1) pint jar of plain canned tomatoes
18. Dried Vegetable (½ cup of a single dried vegetable). Display in a sealed plastic sandwich/freezer bag

4-H FOOD SCIENCE & NUTRITION POSTER & EDUCATIONAL DISPLAYS

DIVERSITY EXHIBITS

LEVEL TWO – Grades 3-5

19. Educational poster based on breads or cheeses of another country or countries.

LEVEL THREE & FOUR – Grades 6-12

20. Educational poster based on the foods from another culture. Can be based on a cultural celebration.

NUTRITION EXHIBITS

LEVEL TWO – Grades 3-5

21. Educational poster based on recipe modification for healthful eating

LEVEL THREE – Grades 6-8

22. Educational poster based on the nutritional contributions of fruits and vegetables

LEVEL FOUR – Grades 9-12

23. Educational display based on a recipe modification to include:
 - Original recipe and what modifications were made
 - Benefits of the modifications
 - How did the modifications impact the above factors?
 - What were other people's responses to the modifications?

FOOD OR KITCHEN SAFETY EXHIBITS

LEVEL TWO – Grades 3-5

24. Educational poster based on food or kitchen safety

LEVEL THREE – Grades 6-8

25. Educational poster based on protein food safety

LEVEL FOUR – Grades 9-12

26. Educational poster based on outdoor cookery or grilling

OTHER EXHIBITS

LEVEL TWO – Grades 3-5

27. Educational poster illustrating a place setting for a specific occasion or menu
28. **Bicycle Poster** – Create a poster on one of the following: a) bicycle safety b) bicycling as part of healthy living c) maintenance of bicycles.

LEVEL THREE – Grades 6-8

29. Educational display based on a breakfast buffet theme. Should include menu, buffet layout, decorations, invitations, and any additional information
30. **Bicycle Poster** – Create a poster on one of the following: a) bicycle safety b) bicycling as part of healthy living c) maintenance of bicycles.

LEVEL FOUR – Grades 9-12

31. Educational poster based on careers in the food industry
32. **Bicycle Poster** – Create a poster on one of the following: a) bicycle safety b) bicycling as part of healthy living c) maintenance of bicycles.

PERSONAL DEVELOPMENT AND LEADERSHIP DIVISION

SECTION Q309 PERSONAL DEVELOPMENT

- All curriculum for Personal Development are posted on the Oklahoma 4-H website at: <https://4h.okstate.edu/projects/personal-development/index.html>
- **Picture Perfect YOUth curriculum and Leader Guide** – This curriculum provides specific lessons in each level of the curriculum (beginner, intermediate and advanced) with fair project instructions. On the table of contents of each project manual, lessons with fair projects are noted with a blue ribbon icon. The score sheet for evaluating fair projects is included in all manuals and leader guide.
- **Heritage Scrapbook Classes** – This manual provides specific activities for each grade division (beginner, intermediate, advanced). Specific activities are required for each grade division and other activities are optional. The Heritage Scrapbook should grow each year! All instructions for completing the Heritage Scrapbook are provided in each activity in the Heritage Scrapbook manual. The score sheet for evaluating the Heritage Scrapbook is included in the manual and Picture Perfect YOUth Leader Guide. Please note that instructions for activities in the Heritage Scrapbook are in **BOLD** in each lesson. Make sure you refer to the score sheets to double check that all required information is included in the scrapbook for each activity.

- **Scrapbooking Classes** – The 4-H Scrapbooking project has a specific curriculum which teaches youth the basics of scrapbooking. The manual is posted on the website link above. Youth are encouraged to go through these six lessons before beginning a scrapbooking project. The score sheet for evaluating the Scrapbooking classes is provided in the 4-H Scrapbooking manual.

Beginner Level (Grades 3-5)

1. My Short Term Goals Poster – Picture Perfect YOUth Beginner Manual: Let's Take A Goal Setting Ride, page 7
2. Hello to the House Poster -- -- Picture Perfect YOUth Beginner Manual: Who am I? Who are YOU?, page 32
3. That's Write! Poster – Picture Perfect YOUth Beginner Manual: Manners Matter: That's Write!, page 41. *The Thank you note subject for 2025 entry is as follows: Mrs. Mitchell, your 4-H club leader, helped your team practice for the upcoming Clover County Food Showdown.*
4. My Hands of Service Display – Picture Perfect YOUth Beginner Manual: Helping Hands in Action, Page 62
5. Emergency Preparedness Kit – Picture Perfect YOUth Beginner Manual: Safe in My World, page 87
6. Heritage Scrapbook – *Required activities:* My Family Tree, Picture This, My Heredity Profile, This is Me. *Optional activities:* Preserving my Family Traditions and Customs, Digital Scavenger Hunt, Can I Interview You?
7. Scrapbook – 4-6 pages (pages counted just like pages of a book, not plastic sleeves.) Scrapbooks should center around a specific theme such as 4-H projects, family vacations, birthday celebrations, a specific family holiday, etc.

Intermediate Level (Grades 6-8)

8. Problem Solving Poster – Picture Perfect YOUth Intermediate Manual: Solutions for Problem-Solving, page 16
9. Media Messages: Myth or Fact? Display -- Picture Perfect YOUth Intermediate Manual: The People in Our Lives, page 46
10. Leadership Banner Poster -- Picture Perfect YOUth Intermediate Manual: Modeling Leadership, page 58
11. My Thumbprint of Character Poster -- Picture Perfect YOUth Intermediate Manual: I.D. Good Character, page 79
12. Cyber Space Safety Board Game -- Picture Perfect YOUth Intermediate Manual: Cyber Space: Keep It Safe, page 89
13. Heritage Scrapbook -- *Required activities:* My Family Tree, Picture This, My Heredity Profile, This is Me, My Day in History, Letter Writing: A Lost Art, Favorite Family Recipe, Hello. My Name is... *Optional activities:* Cultural Museums of Oklahoma, Digital Scavenger Hunt, Can I Interview You?
14. Scrapbook – 8-10 pages (pages counted just like pages of a book, not plastic sleeves.) Scrapbooks should center around a specific theme such as 4-H projects, family vacations, birthday celebrations, a specific family holiday, etc.

Advanced Level (Grades 9-12)

15. Goal Setting Collage Poster-- Picture Perfect YOUth Advanced Manual: Be SMART About Goals, page 15
16. The Who, What, Why and How of an Interview Creative Writing Poster -- Picture Perfect YOUth Advanced Manual: Communicating Well with Others, page 34
17. Teambuilding Game Display -- Picture Perfect YOUth Advanced Manual: Teamwork: Towering to Success, page 53
18. My BEST Marketable Skills Display -- Picture Perfect YOUth Advanced Manual: Making Your Mark!, page 73
19. Vehicle Emergency Kit -- Picture Perfect YOUth Advanced Manual: Destination: Safe, page 81

20. Heritage Scrapbook -- *Required activities*: My Family Tree, Picture This, My Heredity Profile, This is Me, My Day in History, Letter Writing: A Lost Art, Favorite Family Recipe, Hello. My Name is..., My Family Genogram, My Life Timeline, Cultural History Exploration, Family Holidays. *Optional activities*: My Family Poem, Digital Scavenger Hunt, Can I Interview You?
21. Scrapbook – 12-16 pages (pages counted just like pages of a book, not plastic sleeves.) Scrapbooks should center around a specific theme such as 4-H projects, family vacations, birthday celebrations, a specific family holiday, etc.

SECTION Q310 4-H POSTMARK

- This exhibit consists of postmarks, not stamps. All postmarks must be mounted on either 8 1/2" x 11" note paper or photo album page of any color in a binder. All entries are limited to 30 pages for the collection, plus an additional page for the objective of the collection. Plastic cover pages are acceptable to protect the mounts. The criteria for judging will be: 1) Appearance and neatness; 2) readability; 3) material relates to chosen topic; 4) brief written description telling purpose or objective of your collection.
- **NOTE: Metered postage marks must not be used in non-metered class exhibits and non-metered postmarks in metered classes.**
- Collections from a commercial source are not eligible for exhibit (i.e. through a postal society membership.) At least one-third of the postmarks in any collection must have been added during the current project year.
- **All entries must be clearly marked on the front cover or inside the front cover with the member's name and county.**

Beginning Level (Grades 3-5):

1. Postmark for 10 post offices in home county or surrounding area
2. 30 Oklahoma postmarks
3. 20 topical (any category)
4. 25 Metered postage marks

Intermediate Level (Grades 6-8):

5. 30 hand cancelled
6. 10-30 postmarks that tell a story
7. 30 or more different slogans
8. 30 topical (any category)
9. 30 metered postage marks

Advanced Level (Grades 9-12):

10. 100 or more hand cancelled postmarks
11. 30-75 postmarks that tell a story
12. 50 or more different slogans
13. 50 or more topical (any category)
14. 50 metered postage marks

MECHANICAL AND INDUSTRIAL SCIENCE DIVISION

SECTION Q311 - 4-H ELECTRIC EXHIBIT

- All exhibits must illustrate applications and utilize electrical energy. The exhibit must have been constructed by the exhibitor during the year exhibited and must meet electrical safety standards.
 - All exhibits, except lamps, will be judged on electrical wiring and connections, electrical components, usefulness of exhibit, working condition, complexity and design, appearance, originality, workmanship and safety. Lamps will be judged as described for each class.
1. **Electrical projects (Grades 3-7)** - Entries to include electromagnets, motors, buzzers and direct current circuit boards
 2. **Kit Lamps (Kit Construction)-(all grades)** - Electrical wiring and connections, light source, and suitability as a reading lamp will be judged. Lamps can be floor, desk, or wall models.

3. **Original Lamps - (all grades)** - Originality, workmanship, electrical wiring and connections, light source, and suitability as a reading lamp will be judged. Lamps can be floor, desk, or wall models. (No kits.)
4. **Educational poster on careers in the electrical field – (all grades)** – Poster must be 14" x 22"
5. **Electric and Electronic Circuits - (Grades 3-7)** - The exhibit should be mounted on a board and clearly show all circuits. The exhibit should be operational and demonstrate a useful principle or be functional. The exhibit should include an explanation of the principal being demonstrated.
6. **Electric and Electronic Circuits - (Grades 8-12)** - The exhibit should be mounted on a board and clearly show all circuits. The exhibit should be operational and demonstrate a useful principle or be functional. The exhibit should include an explanation of the principal being demonstrated.
7. **Exhibit - (Grades 3-7)** - Exhibit demonstrating skill or knowledge such as wire sizing; proper wiring of an electrical cord plug, wall outlet, wall switch, 3-way switch, etc. The exhibit should include an explanation of the principal being demonstrated.
8. **Exhibit - (Grades 8-12)** - Exhibit of wiring diagram for a home, other building, or electric supply system for a community.
9. **Electric Concepts Poster – (Grades 3-7)** – Poster (14" x 22") Exhibit showing a basic electric concept or explaining the proper use of electricity in modern life.
10. **Electronics/Lighting Selection Poster - (Grades 8-12)** - Poster (14" x 22"). Exhibit is on information that consumers might use in making a selection of any electronic devices such as computers, games, telephones, lighting fixtures, bulbs or other electronic device.

SECTION Q312 – 4-H ROCKETRY

- NO LIVE ROCKET ENGINES WILL BE ALLOWED IN ANY EXHIBIT.
- Model rockets, posters and displays should be permanently signed and dated in an inconspicuous location. If not marked the judging committee may mark or punch exhibit.
- Attach a 3"x5" index card attached to the rocket, explaining:
 - Construction material, how constructed, and goal of project
 - Year in project
 - Grade of member
 - Whether or not made from kit
 - Other pertinent information

Junior Division (Grades 3-7)

1. Poster showing the parts of a model rocket, with an explanation of the purpose of each part.
2. Poster explaining the function of the model rocket engine.
3. Poster showing one or more points from model rocketry safety code.
4. Model Rocket made from a kit. Must be safe and functional for flight.
5. Model Rocket designed and built by exhibitor. Must be safe and functional for flight. (These rockets include water rockets, air power rockets, or any rocket built without a commercial kit.)
6. Launched rocket- Rocket must have been launched prior to the State Fair. Please include a 3"x5" card stating approximate height rocket flew during launch.
7. Poster on any other topic pertaining to rocketry. (Examples: History of Rocketry, NASA Rockets, Commercial Rockets, Recent Rocket Launches, Purpose of Rockets, Rocket designs, etc.)

Senior Division (Grades 8-12)

8. Poster or display showing the parts of a model rocket, with an explanation of the purpose of each part.
9. Poster or display explaining the function of the model rocket engine.
10. Poster or display showing one or more points from model rocketry safety code.
11. Model Rocket made from a kit. Must be safe and functional for flight.
12. Model Rocket designed and built by exhibitor. Must be safe and functional for flight. (These rockets include water rockets, air power rockets, or any rocket built without a commercial kit.)
13. Launched rocket- Rocket must have been launched prior to the State Fair. Please include a 3"x5" card stating approximate height rocket flew during launch.
14. Poster on any other topic pertaining to rocketry. (Examples: History of Rocketry, NASA Rockets, Commercial Rockets, Recent Rocket Launches, Purpose of Rockets, Rocket designs, etc.)

SECTION Q313 - 4-H WOOD SCIENCE AND INDUSTRIAL ARTS

- The wood science exhibits should demonstrate a project experience, which emphasizes the development of woodworking skills such as: sawing, sanding, planning, alignment of joints, neat use of fasteners (nails, screws, etc.), and careful application of finishes. Judging will focus on the evidence of these skills.
- Miscellaneous and refinished class items should be similar in size to the exhibits in the classes listed for the grade division.

WOOD SCIENCE - Junior is grades 3-7; Senior is grades 8-12

1. Jr. Wood Carving Article
2. Sr. Wood Carving Article
3. Jr. Woodcraft ---- Original design
4. Sr. Woodcraft ---- Original design

Beginning Level (Grades 3-5)

5. Wall mounted rack for hot pads, ties, paper towels or other wall mounted item
6. Puzzle or game
7. Spice, what-not or other small shelves
8. Book ends
9. Miscellaneous

Intermediate Level (Grades 6-8)

10. Book case or entertainment center (without doors)
11. Rack for guns, baseball bats, fishing rods, etc.
12. Refinished item - attach before picture & story with history of item, cost sheet, and description of process used
13. Miscellaneous

Advanced (Grades 9-12)

14. Display, curio, or gun cabinet (with doors)
15. Table
16. Chest
17. Miscellaneous
18. Refinished item - attach before picture & story with history of item, cost sheet, and description of process used.

METALWORK - Junior is grades 3-7; Senior is grades 8-12

19. Jr. Metalwork ---- Embossed, tooled, etched
20. Sr. Metalwork ---- Embossed, tooled, etched
21. Jr. Metalwork---- Soldered
22. Sr. Metalwork ---- Soldered
23. Jr. Metalwork ---- Arc Welding
24. Sr. Metalwork ---- Arc Welding
25. Jr. Metalwork --- Gas Shielded Arc Welding
26. Sr. Metal Work --- Gas Shielded Arc Welding
27. Jr. Metalwork ---- Free Hand Plasma Cutting
28. Sr. Metalwork --- Free Hand Plasma Cutting
29. Jr. Metalwork----- Computer Aided Plasma Cutting
30. Sr. Metalwork --- Computer Aided Plasma Cutting

ENVIRONMENTAL EDUCATION AND EARTH SCIENCES DIVISION

SECTION Q314 – 4-H SHOOTING SPORTS

- No live ammunition, actual firearms or parts of firearm that could be reassembled should be included. Any manufactured part of a sporting arm may not be displayed. NO KNIVES, AXES, etc. may be entered.
- For exhibits other than posters, attach a 3"x5" inch notecard to the back of the exhibit describing the exhibit, what was done to create or prepare this exhibit and how the exhibit relates to the Shooting Sports Project.
- Exhibits deemed to be inappropriate will not be displayed. Exhibits suggested but not limited to posters, educational displays, journals, slings, quivers, gun stocks, decoys and equipment.
- All exhibits will be judged on the basis of instructions and standards explained in the Oklahoma "501: 4-H Shooting Sports Exhibit Preparation Guidelines Leaders/Members Guide" #690 (1/2007) which is available through the County Extension Office and on the Oklahoma State 4-H Website: <https://4h.okstate.edu/projects/shooting-sports-curriculum/site-files/docs/information-resources/shooting-sports--project-prep-guide-updated-logo.pdf>

Junior Division (Grades 3-7)

1. ARCHERY SAFETY: any related item made
2. ALL OTHER DISCIPLINE SAFETY: any related item made
3. ARCHERY: any related item made
4. AIR PISTOL: any related item made
5. AIR RIFLE: any related item made
6. .22 RIFLE: any related item made
7. SHOTGUN: any related item made
8. HUNTING AND WILDLIFE: any related item made (May include tanned hides, dried and mounted wings, cleaned skulls or other wildlife parts preserved by the 4-H member. Full taxidermy style mounts will not be accepted due to limited space.)

Senior Division (Grades 8-12)

9. ARCHERY SAFETY: any related item made
10. ALL OTHER DISCIPLINE SAFETY: any related item made
11. ARCHERY: any related item made
12. AIR PISTOL: any related item made
13. AIR RIFLE: any related item made
14. .22 PISTOL: any related item made
15. .22 RIFLE: any related item made
16. SHOTGUN: any related item made
17. MUZZLELOADING: any related item made
18. HUNTING AND WILDLIFE: any related item made (May include tanned hides, dried and mounted wings, cleaned skulls or other wildlife parts preserved by the 4-H member. Full taxidermy style mounts will not be accepted due to limited space.)

SECTION Q315 ENTOMOLOGY - 4-H INSECT EXHIBITS

- The exhibits in entomology are planned to build on prior educational experience.
- A 4-H member may enter only one insect collection. All insects must be mounted on standard insect pins which can be purchased from the State 4-H Office. Each insect should be identified by their common name using the correct spelling. A typed master list indicating the scientific order and common name of each specimen should accompany the display. The master list document is located at <https://4h.okstate.edu/events/okc-tulsa-state-fair/site-files/docs/fair-forms-resources/insect-collection-master-list.pdf>
- Exhibit collections for Classes 1 through 5 are allowed a maximum of five (5) foreign and/or out-of-state collected insects.
- Exhibits in Class 1 (First Year) must be displayed in the folding insect storage box which can be purchased individually from the State 4-H office and covered with plastic wrap.

- Exhibits in Classes 2 through 5 must be in insect display boxes measuring 19" x 16.5" x 3". This is the size of a Cornell University Drawer. These boxes can be made using the pattern available at <https://4h.okstate.edu/projects/plant-science-and-entomology/site-files/docs/entomology-pdfs/entomology-display-box.pdf>. Boxes that are not this size will be **DISQUALIFIED**. At least one-third of the specimens in any collection must have been collected during the current project year building upon your previous collections.
- For more information, instructions and judging criteria, please see the State 4-H Website.

Class:

1. **First Year** - The exhibit shall consist of 25 adult insects (representing at least 5 orders) which are displayed in Folding Insect Storage Box 9"x13"x2.5". This box can be purchased individually from the State 4-H office. Cover with plastic wrap.
2. **Second Year** – The second year exhibit shall consist of 40 adult insects (representing 8 orders) which are displayed in the insect display box as indicated above.
3. **Third Year** - The third year exhibit shall consist of 50 adult insects (representing 10 orders) which are displayed in the insect display box as indicated above.
4. **Fourth Year** - The fourth year exhibit shall consist of 75 adult insects (representing 12 orders) which are displayed in the insect display box as indicated above.
5. **Fifth Year and Beyond** - The exhibit shall consist of 100 adult insects (representing 14 orders) which are displayed in the insect display box as indicated above. There is no limit on the number of years this class may be entered, if exhibit has additions or major modifications. At least one-third of the specimens in any collection must have been collected during the current project year building upon your previous collections.
6. **Self-Determined Entomology Exhibit** - Designed to allow exhibitors to prepare educational Entomology exhibits. Exhibits should be educational, neat and attractive and easy to understand. A one-page written report explaining the nature or purpose of the project must accompany the exhibit.
 - a. **Careers in Entomology**
 - b. **Biodiversity- the roles insects play in the ecosystem**
 - c. **Invasive species**
 - d. **Integrated Pest Management**

SECTION Q316 - 4-H FORESTRY

- Forestry boards and exhibits must be signed and dated on the back by the exhibitor. Two holes should be drilled in the wood board to facilitate displaying the exhibit.

TREE LEAF EXHIBITS

NOTE: Exhibits in classes 1-3 must conform to all requirements, including labeling and display requirements, outlined in 4-H fact sheet #236. "Collecting and Exhibiting Tree Leaves" (revised 9/2007) <https://4h.okstate.edu/projects/environmental-science/site-files/docs/forestry/2022-collecting-and-exhibiting-tree-leaves.pdf>

1. **Grades 3-5** Collection of 10 leaves from trees native to Oklahoma (no introduced species). One specimen must be from a native evergreen — pine or juniper. Include a twig and buds with each broadleaf specimen. Exhibit must be properly labeled and displayed on board 22" wide and 28" tall.
2. **Grades 6-8** Collection of 15 leaf specimens, representing at least three of the five basic leaf types, from trees native to Oklahoma (no introduced species). Two specimens must be from a native awl or scale-leaf evergreen — pine or juniper. Nonnative species are acceptable only if they have been introduced for planting windbreaks and shelterbelts. Include a twig with buds with each broadleaf specimen. Exhibit must be properly labeled and displayed on board 28" tall and 44" wide. Two 28" x 22" boards hinged in the middle are more portable.
3. **Grades 9-12** Collection of 20 leaf specimens, representing at four of the five basic leaf types, from trees native to Oklahoma. Three specimens must be from needle, scale or awl-leaf evergreens. Species of pine not native to Oklahoma are acceptable if they have been introduced for planting windbreaks and shelterbelts. The palmate leaf sample must come from a native Oklahoma species.

WOOD SAMPLE EXHIBIT

Wood sample exhibits should conform to instructions outlined by grade group in Oklahoma 4-H Fact Sheet #238 "Wood Sample Exhibits" (revised 2/2007) **ALL MEMBERS SHOULD USE THE GUIDELINES FOR CLASS II EXHIBITS** <https://4h.okstate.edu/projects/environmental-science/site-files/docs/forestry/2022-wood-sample-exhibits.pdf>

4. **ALL GRADES-** The exhibit shall consist of eight (8) wood samples (4 hardwoods and 4 softwoods) mounted on plywood 1/4" thick x 22" wide x 20" high.

SELF-DETERMINED EXHIBIT

NOTE: Open to 4-H members of all grades. Exhibit suggestions are listed in 4-H Members Guide, "4-H Forestry Self-Determined Exhibits." Pub. #239 (revised 3/05) <https://4h.okstate.edu/projects/environmental-science/site-files/docs/forestry/2022-forestry-self-determined-project.pdf> The exhibit shall consist of a poster, model, or any one of a great number of other creative efforts by the club member which relates to the science and technology of forestry or is otherwise directly related to forestry. If display not to exceed 36" x 36" (width x depth) or poster not to exceed 14" x 22".

5. Self-determined exhibit, **Grades 3-7**

6. Self-determined exhibit, **Grades 8-12**

SECTION Q317 – 4-H GEOLOGY

- Any eligible 4-H member may participate in collecting, identifying, and preparing a rock-mineral-fossil exhibit. Individual 4-H member can enter only one exhibit per class.
- Rock-mineral-fossil exhibitors should securely display their specimens in a box no larger than 24" x 24". Box can be wood, plastic or cardboard but have a method of covering the rocks, minerals and fossils.
- Each sample should be mounted or in a compartment and labeled in a neat, orderly manner. Labels should include common name, date, location found and mineral use. At least one-third of the specimens in any collection must have been added during the current project year.

Class:

1. Fifteen (15) different unpolished rocks, minerals, or fossils collected in Oklahoma
2. Thirty (30) different unpolished rocks, minerals, or fossils, including specimens of sedimentary, igneous and metamorphic.
3. Self- Determined exhibit — Education exhibit depicting some phase of geology, testing of minerals, polished rocks, etc. (Display should not exceed 24" x 24")

Energy/petroleum exhibits:

Junior Division (Grades 3-5)

4. Poster on well site safety.
5. Energy/Petroleum Display. Subject of the display should be petroleum products; different types of energy and how they work; or different careers in energy.

Intermediate Division (Grades 6-8)

6. Photography Exhibit over a state park or geological region (not limited to Oklahoma). Four photos mounted on 14" x 14" poster board with detailed explanations and information.
7. Poster on Water Mineral Issue. Subject of poster should be one of the following:
 - What water hardness and mineral testing can determine.
 - Secondary recovery methods.
 - Dangers of lead in the water.

Senior Division (Grades 9-12)

8. Poster of a press release; collected about energy information and your interpretation; possibly the Energy Index or other topic. Include the source of information on poster.
9. Energy or Petroleum Display. Subject of the display should be areas of the Oklahoma Energy Index; different drilling techniques and how they work; or careers in the energy industry.

SECTION Q318 - 4-H WILDLIFE PROJECTS

- All exhibits will be judged on the basis of instructions and standards explained in the “4-H Project Wildlife Exhibit Preparation Guidelines” (#720 revised 12/06). This and other publications listed below are available at the County Extension Office or at <https://4h.okstate.edu/projects/environmental-science/index.html>
 - List of links for facts sheets listed in the below category-
- Lit #721 - Self determined 4-H Wildlife and Fisheries Project Ideas: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/self-determined-wildlife-and-fisheries-project-ideas-721.pdf>
- Lit #719 – Food and Cover Cards: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/wildlife-food-and-cover-card-719.pdf>
- Lit #473 – Animal Tracks: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/animal-tracks-473.pdf>
- Lit #620 – Introduction to Birding: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/introduction-to-birding-620.pdf>
- Lit #621 – Using Binoculars: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/using-binoculars-621.pdf>
- Lit #622 – Bird Identification: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/bird-identification-622.pdf>
- Lit #723 – Bird Feeder Station Report: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/bird-feeding-station-report-723.pdf>
- Lit #724 – Bird House Observation Report: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/birdhouse-observation-report-724.pdf>
- Lit #772 – Birds and Nests Observation: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/bird-and-nest-observation-772.pdf>
- Lit #237 – Leaf Presses and Collecting Hints: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/leaf-presses-and-collecting-hints-237.pdf>
- Lit #718 – Wildflower Card: <https://4h.okstate.edu/projects/environmental-science/site-files/docs/wildlife-and-fisheries/wildflower-card-718.pdf>
- Include references for information. At least one reference must be from a source other than the internet.
 - All exhibits on boards must have hangers. Eye screws and wire preferred. No saw-toothed hangers.

OKLAHOMA WILDLIFE

Exhibits entered in this section should relate to a specific category of game or non-game animals or birds.

Junior (Grades 3-7)

1. Scrapbook of Oklahoma Wildlife (cutouts, pictures or drawings) of at least five (5) mammals, five (5) birds and five (5) reptiles or amphibians. Give common name and what habitat they can be found in, Common names should be specific (i.e. black rat snake, pygmy rattlesnake, etc.)
2. Self-Determined Exhibit. Posters must be 14" x 22". Displays must not exceed 3' x 4'. (width x depth).

Senior (Grades 8-12)

3. Educational Poster (must be 14"x22") on careers in Natural Resources.
4. Self-Determined Exhibit. Posters, must be 14" x 22". Displays must not exceed 3' x 4' (width x depth). Possible examples include but are not limited to: description of a Wildlife Management Area detailing area, location, habitat, management, and wildlife population trends (if known); or a poster with an emphasis on the life cycle, status, range map and habitat of an Oklahoman threatened or endangered species. Species names must be used for plants and wildlife in addition to common names. See Lit. #721 “Self Determined 4-H Wildlife and Fisheries Project Ideas” revised 12/06 for additional examples.

All Grades

5. A) A collection of fifteen (15) different kinds of plants, trees or shrubs known to provide food or cover for wildlife, mounted on food and cover cards or (B) a seed board with fifteen (15) different kinds of seeds eaten by wildlife. No more than four (4) varieties may be cultivated crops. All of the specimens must have been collected during the current project year. For each plant or seed included list one (1) wildlife species that use that plant or seed (on the cover card or board). All plant species must be native to Oklahoma except that up to four (4) of the plants (or seeds) may be from cultivated crops (Wildlife Food and Cover Card Lit #719)

6. Exhibit of the tracks of eight (8) wild animals or birds commonly found in Oklahoma. POSITIVE or NEGATIVE plaster casts should be mounted on masonite or plywood, not to exceed 12" x 24". Label each track with kind of animal or bird, which county track was found in, what habitat it was found in and what date the track was cast. See 4-H Lit. #473 Animal Tracks for more instructions and details.

7. Wildlife Single Photo Entry illustrating one of the following 1) wildlife in its natural habitat 2) interaction between two or more wildlife species 3) wildlife displaying a unique behavior 4) an animal at the zoo. Prints must be no smaller than 3.5 inch x 5 inch and no larger than 5 inch x 7 inch. Digital photos may not be manipulated or altered except for color and contrast adjustments, cropping, exposure adjustments, and red eye reduction. Prints must be securely attached to the surface of a poster board or mat board. No double matting, use of multiple layers or more than one color. The entire print must be seen and cannot be masked in any way. Boards must be no larger than 10" x 10". Captions are optional, but not required. Photos are to be taken by the exhibitor.

4-H FISHERIES

Junior (Grades 3-7)

8. Display board showing steps in tying two kinds of fishing knots used in tying lines or leaders. Use cord instead of fishing line. Mount on board suitable for hanging, not to exceed 12" x 12".

9. Notebook describing habits and appearance of five (5) fish found in Oklahoma. Information on each fish to include photo, drawing or cut-out picture, proper common name, kind of food eaten, distinctive physical characteristics, best ways to catch and other topics of interest to anglers.

10. Display of five (5) member assembled lures, together with the materials from which they were assembled, mounted on a board not to exceed 12" x 16". Lures may be spinners, jigs, flies, plugs or a combination of these. May be entirely homemade or assembled from purchased supplies.

11. Self-Determined Fish Project. Educational report, display or project created by the member. Topic to deal with fish, fishing, fish farming, aquatic food chains or pollution in Oklahoma waters.

Senior (Grades 8-12)

12. Notebook describing habits and appearance of ten (10) fish found in Oklahoma. Information on each fish to include photo, drawing or cut-out picture, proper common name, kind of food eaten, distinctive physical characteristics, best ways to catch and other topics of interest to anglers.

13. Display of five (5) fishing flies tied by the exhibitor. The material and shape of the exhibit will be exhibitor's choice, but cannot exceed 12" x 12" in size. Attach report to exhibit to indicate the following about each fly on the board: type of fly, type of fish it is used to catch, habitat conditions it is used in and cost to purchase or make.

14. Display of five (5) fishing lures. Lures may be any type commonly used in sport fishing. The material and shape of the exhibit board will be exhibitor's choice, but cannot exceed 12" x 12". Attach report to exhibit to indicate the following about each lure on the board: type of lure, type of fish it is used to catch, habitat conditions it is used in and cost to purchase or make.

15. Self-Determined Fish Project. Educational report, display or project created by the member. Topic to deal with fish, fishing, fish farming, aquatic food chains or pollution in Oklahoma waters.

4-H BIRDS

Junior (Grades 3-7)

16. Display of a home constructed bird feeder (may be from a kit), must include a 3" x 5" index card tacked to the feeder with the following information: 1) What species was it constructed for; and 2) What habitat and site location (should include height) it will be placed in. **Should be functional and not decorative.**

17. Display of a single unit bird house, home constructed (may be from a kit) with a 3" x 5" index card tacked to the house with the following information: (1) What bird species was house constructed for and (2) What habitat and site location (should include height) the house will be placed in. **Should be functional and not decorative.**

18. Notebook of fifteen (15) pictures, drawings or photos of birds seen and identified by member and labeled with common name of each.

19. Self-Determined Poster (14" x 22"). See "Self Determined 4-H Wildlife & Fisheries Project Ideas" Oklahoma 4-H Pub. #721 (revised 12/06) for ideas.

Senior (Grades 8-12)

20. Notebook of twenty-five (25) pictures, drawings or photos of birds seen and identified by member and labeled with common name of each.

21. Display of a Purple Martin bird house, home constructed (may be from a kit). **Should be functional and not decorative.**

22. Self-Determined Bird Project. See "Self-Determined 4-H Wildlife & Fisheries Project Ideas" Oklahoma 4-H Pub. #721 (revised 12/06) for ideas. See 4-H Wildlife Project Lit No. 720 "Exhibit Preparation Guidelines Leaders/Members Guide" (revised 12/06) for guidelines.

All Grades:

23. Observation report for Bird Feeder used during previous year, including photo of feeder at location used (report #723 found on OK Lit. online under Wildlife & Fisheries). May use feeder constructed or a purchased feeder.

24. Observation report for Bird House used during previous year, including photo of feeder at location used (report #724 found on OK Lit. online under Wildlife & Fisheries). May use birdhouse constructed or a purchased house.

4-H WILDFLOWERS

At least one-third of the specimens must have been collected during the current project year. See information on pressing plants in "Leaf Pressing and Collecting Hints" 4-H Publication No. 237 (Revised 04/04) to prepare plants for collections and exhibits. Posters should be hand generated and not downloaded from internet or computer. "Wildflower Card" (OK 4-H Lit. #718) can be downloaded from OK 4-H Lit. On-Line under Wildlife & Fisheries. <https://4h.okstate.edu/projects/environmental-science/index.html>

Please print form on card stock or heavy paper and hole punch.

Junior (Grades 3-7)

25. Collection of eighteen (18) Oklahoma wildflowers properly pressed and mounted on wildflower cards. Label with common name flower family and tell location and date collected. Display in a notebook.

26. Drawing or diagram showing parts of a wildflower blossom, not to exceed 8 1/2" x 11".

27. Display two (2) principle wildflower families showing four (4) or more pressed flowers of each family labeled with common name. A brief description of each flower family should be included. Posters must be 14" x 22" or display in a notebook.

28. Self-Determined Poster (14" x 22"). See "Self Determined" 4-H Wildlife & Fisheries Project Ideas" Oklahoma 4-H Pub. #721 (revised 12/06) for ideas.

Senior (Grades 8-12)

29. Collection of twenty five (25) Oklahoma wildflowers properly pressed and mounted on wildflower cards. Label with common name, scientific name, flower family, location collected, date collected and habitat collected from. Display in a notebook.

30. Poster on historical and/or cultural uses of wildflowers in Oklahoma.

31. Special collections. Collection of specimens in some special category, i.e. one (1) family, poisonous, dyes, edibles or specific season such as early spring. Posters must be 14" x 22" or displayed in a notebook on card stock pages or wildflower cards (Lit. # 718).

32. Self-Determined Exhibit. See "Self-Determined 4-H Wildlife & Fisheries Project Ideas" Oklahoma 4-H Pub. #721 (revised 12/06) for ideas.

All Grades:

33. Make a collection, mount and press, at least five (5) leaves of plants showing leaf arrangements (opposite, alternate and whorled); types of leaves (simple, pinnately compound, palmately compound); leaf margins (toothed, smooth and lobed). If poster must be 14" x 22" or display in notebook on card stock pages or wildflower cards (Lit # 718).

SECTION Q319 – 4-H ENVIRONMENTAL STEWARDSHIP

- Each piece of exhibits containing more than one item must be labeled with exhibitor's name and county.
- Publications listed in this section can be found at <https://4h.okstate.edu/projects/environmental-science/index.html>

1. Vermi Composting (with Worms) (grades 3-7)

Compost sample and poster that explains how to compost with worms. Must include report (1 page) for one or more of the following areas: bins for vermi composting, feeding and care, moisture requirements, harvesting compost. Poster must include a photograph of your compost bin. One pint of compost (worm castings) in a sandwich-size zip-lock bag or pint jar with lid must be included.

2. Exploring Streams and Lakes Poster (grades 3-7)

Poster (14" x 22") with photos showing a stream, lake or pond you have visited. Photos should show things like shorelines or creek banks, appearance of the water, condition of vegetation on the shore or banks, and problem areas such as erosion, trash or obvious pollution. For more ideas read Lit. #19. "Water Quality of Streams and Lakes" Related report form is #20. Each photo must have a caption explaining what it shows. Overall, the poster should tell what you think is helping or harming the water or the plants and animals that live there. Changes should be shown over time for projects after the first year. Poster title should include name of water body, if it has one, and town or county where located.

3. Water Critters (Grades 3-7)

Display a collection of pond, lake or stream critters (invertebrates only - no animals with backbones e.g. fish or frogs) preserved in one to three small glass jars with rubbing alcohol as described in Lit. #21 "Aquatic Organism". Securely attach a completed Critter ID bookmark (Lit. # 29 "Stream and Lake Critter Identification") to the jar using tape and a string around the jar neck. Do not include more than one of each type of critter. Collect only critters found on or in the water, not adult flies. Write a short paragraph telling about the value of water critters - read and summarize in your own words Lit. # 21 or related materials. Optional: Include one single-sided page of labeled photos or drawings of the site or collecting activity.

4. Where Does My Water Come From Poster (Grades 3-7)

Poster should show or describe the source of your water (lake, aquifer, and private well) and/or what is done to it (water treatment plant, home filtration system) before it gets to your home. See Lit # 19 "Water Quality of Stream" for ideas.

5. Natural Resources of My County Poster (Grades 3-7)

Poster (14" x 22") with your photos showing a mixture of local natural resources like prairies, forests, scenic views, water bodies, agriculture, wildlife or similar things. Each photo must have a caption naming the resource. Overall, the poster should convince the reader that your county is a great place to live. Poster should be at least 1 inch tall and include name of your county.

6. Recycled Item – (Grades 3-7)

Useable item made from trash other than craft type item. Original ideas and useful items will be ranked higher. Attach 3" x 5" card listing all materials used.

7. Aquatic Habitat Poster (Grades 3-7)

Poster (14" x 22") with photos showing a stream, lake or pond you have visited. Photos should illustrate distinct habitats such as shoreline vegetation, undercut banks, rocky shores, riffles, pools or runs. Each photo must have a caption explaining what it shows. For more ideas read Lit. #21. "Aquatic Organism" Overall, the poster should comment on things you observed that could be helping or harming the critters or their habitat. Changes should be shown over time for projects after the initial year. Poster title should include name of water body, if it has one, and town or county where located.

8. Homemade Stream or Lake Sampling Equipment (Grades 3-7)

Display one piece of stream or lake sampling equipment that you have made. Write a one page report explaining its purpose and how to use it. Some possibilities include Secchi disks, plankton tows, deep water samplers, and kick nets. See TV A booklet, "Homemade Sampling Equipment" for instructions on how to make equipment. Optional: Include one single-sided page of labeled photos or drawings showing equipment in use.

9. What Is A Watershed? Poster (Grades 8-12)

Poster should describe what watersheds are and how they work. Title must contain the word, "watershed". See Literature # 24 "Understanding Human Impact on Streams" for ideas.

10. Natural Resources of My County Poster (Grades 8-12)

Poster with photos showing a mixture of local natural resources like prairies, forests, soils, scenic views, water bodies, agriculture, wildlife or similar things. It is desirable to show people using the resource. Each photo must have a caption naming the resource and explaining how people use and enjoy it. Overall, the poster should convince the reader that your county is a great place to live. Poster title should be at least 1 inch tall and include name of your county.

11. Stream, Pond or Lake Poster (Grades 8-12)

Poster should include photos showing a stream, pond or lake you have visited. Poster should show things people have done or might do along the shore or in the watershed that can harm this stream, pond or lake. For ideas read Literature #'s 21 & 24. Poster title must include name of water body and town or county where located.

12. Water Critters (Grades 8-12)

Display a collection of pond, lake or stream critters (invertebrates only - no animals with backbones e.g. fish or frogs) preserved in small glass jars with rubbing alcohol as described in Lit. # 21 "Aquatic Organism". Collect in only one water body. Separate critters from different habitats into different jars, labeled with habitat name. Do not include more than one of each type of critter in each collection jar. Collect only critters found on or in the water, not adult flies. Write a 1 page report on three of your critters explaining how they are adapted to their habitat. Read Lit. # 21 for ideas. Use the Bookmark Critter ID rating form instructions (Lit. # 29) to calculate the water quality rating for your water body and include results in your report.

13. Homemade Stream or Lake Sampling Equipment (Grades 8-12)

Display one piece of stream or lake sampling equipment that you have made. Write a 1 page report explaining its purpose and how to use it. Some possibilities include Secchi disks, plankton tows, deep water samplers, and kick nets. See TVA booklet, "Homemade Sampling Equipment" for instructions on how to make equipment Optional: Include one single-sided page of labeled photos or drawings showing equipment in use.

14. Illegal Dumping - Poster (Grades 8-12)

Poster should discourage illegal dumping and explain how illegal dumps can contaminate water or create other problems.

15. Landfill Display (Grades 8-12)

Display showing how landfills work.

16. Recycled Item – (Grades 8-12)

Useable item made from trash other than craft type item. Original ideas and useful items will ranked higher. Attach 3" x 5" card listing all materials used

17. Group Environmental Project Display (all grades)

This exhibit is to consist of a display and written report of an environmental project carried out by 4 or more 4-H members under the supervision of a 4-H leader. The project may focus on any area of environmental stewardship including recycling, education about a local environmental issue, planting trees or other area of interest. Display not to exceed 3' x 4' (depth x width). Judging criteria:

- A brief project description and statement of purpose and objectives.
- Creativity and quality of project.
- A brief summary of project activities, extent to which objectives were achieved, knowledge gained, significance of the project to the environment in the community, and number of people involved and/or impacted by project.
- Media campaign. Include copies of newspaper clippings and other publicity related to the project.
- Photographs may be included.

18. Individual Self-Directed Environmental Stewardship Project (all grades)

Educational report, display or exhibit on the efforts of the member to protect or improve the environment in or near his/her community. Projects may include topics such as protecting water quality, recycling, illegal dumping, household hazardous wastes, reducing soil erosion on farmland, controlling urban runoff or other topics relevant to the community. Project may include: (1) Hands-on efforts (such as controlling erosion by tree planting or use of buffer strips), (2) Educational programs conducted in the community, including numbers reached and newspaper clippings (such as minimizing solid waste), or (3) A combination of hands-on and educational.

PEANUT INFORMATION EXHIBIT

Eligibility: Any 4-H member interested in learning more about peanuts and the peanut industry may prepare an exhibit. A 4-H notebook should be included in the display. The exhibit should provide information about one phase of the peanut industry such as history, use, production, processing, or importance. Exhibit should increase the public awareness of the importance and impact of the specific sector of the peanut industry selected. The notebook should include any involvement the exhibitor has had with peanuts, such as teaching others, giving talks or demonstrations, preparing peanut foods, planning programs, producing peanuts, etc. The notebook may be typed or handwritten and should include pictures.

Criteria for judging:

30 points: Completeness of education lesson

30 points: Public appeal

40 points: Notebook

19. Junior Division (Grades 3-7)

20. Senior Division (Grades 8-12)

CROPS IN OUR LIVES POSTER EXHIBIT

Choose an agronomic crop, and create a poster depicting one of the following topics related to that crop:

- a. History (domestication process, global spread via immigrants, etc.)
- b. Production
- c. Use in different cultures
- d. Use in different processed foods

21. Grades 3-5

22. Grades 6-8

23. Grades 9-12

SELF DETERMINED GARDENING

32. Junior Division (**Grades 3-7**) Poster size is 14" x 22". Other exhibits limited to 4'x4'x4' due to space limitations

33. Senior Division (Grades 8-12) Poster size is 14" x 22". Other exhibits limited to 4'x4'x4' due to space limitations

SECTION Q323 - 4-H HOME GROUNDS

EXHIBIT UNIT I - LANDSCAPING HOME GROUNDS

- "Before and After" pictures not to exceed 5" x 7" of yard clean-up, plantings or construction of landscape elements mounted securely on one 14" x 22" sheet of poster board shall constitute this exhibit. Number of pictures should be no less than two nor greater than eight. Posters must be permanently signed and dated on the back.
- Neatness and arrangement of pictures is important. A brief explanation of the project should be attached to the exhibit, and each picture must be labeled. The before and after pictures should show a definite change and should be taken from the same place so judges can evaluate the change. An exhibit should not be entered more than once unless it has been substantially revised.

1. Junior-(**Grades 3-7**)

2. Senior-(**Grades 8-12**)

EXHIBIT UNIT II - HERBARIUM CARD

These exhibits shall consist of dried and pressed specimens of leaves and other specified parts of native or cultivated trees, vines and/or shrubs. Each leaf specimen should be mounted on a separate 8" x 10" herbarium card available at your County Extension Centers or at <https://4h.okstate.edu/projects/plant-science-and-entomology/site-files/docs/horticulture-pdfs/herbarium-card-620.pdf> Only the information required in your division should be filled out. The cards should be enclosed in a notebook or binder. Each specimen should be covered with a transparent plastic or similar covering to protect it from damage. No leaf should be more than 3 years old and at least one-third of the specimens must have been collected during the current project year. Instructions for collecting and pressing are available in the OSU Extension Center.

3. **Grades 3-5** A collection of 15 specimens with the following information: (1) common name, (2) general class, (3) kind of plant

4. **Grades 6-8** A collection of 25 specimens with a pressed flower, or fruit or seed included with each specimen. Information on the card to be filled out is (1) common name, (2) general class, (3) kind of plant, (4) form, (5) color, (6) exposure

5. **Grades 9-12** A collection of 30 specimens with a pressed flower, fruit or seed included with each specimen. All information on the card should be filled out

EXHIBIT UNIT III - GROUP OR CLUB EXHIBIT

A group is to consist of 3 or more 4-H members under supervision of 4-H leaders. All projects must employ horticulture material for the purpose of conserving natural beauty of an area or improving the aesthetic quality and/or function of an area. Other material such as concrete walks, benches, etc. may be used in addition to the horticulture material.

Judging Criteria:

A. A brief project description and statement of purpose and objectives.

B. Creativity demonstrated and quality of the project.

- Extent to which plan integrates total needs of area, short and long term.
- Functional use and aesthetic considerations of horticultural materials and techniques.
- Operational considerations of expenses encountered, resource personnel contacted and maintenance factors.
- "Before and After" photographic sequence to illustrate effectiveness of the project.

C. A brief summary of project activities, extent to which objectives were achieved, knowledge gained, and the particular significance of the project toward the improvement and beautification of your environment.

D. Newspaper clippings and other publicity of the project.

6. The exhibit to consist of landscape or environmental beautification project report on a project such as a home grounds, school, community center, church, city or roadside park, highway beautification, clean-up campaign, etc.

SECTION Q324 – 4-H HORTICULTURE

TERRARIUMS

- Terrarium of plant life. Refer to OSU Fact Sheet No. F-6438 or a similar guideline. No specific size of container, materials, plants or methods.
- Criteria for judging will be (1) compatibility and arrangement of plants and materials, (2) appropriate potting media, (3) attractiveness and originality, (4) appropriate size of plants for container.
- Terrariums should feature either woodland or tropical plants and feature at least 3 different species of plants. Terrariums must be completely covered at all times.
- **Terrariums containing succulents will be disqualified; succulents belong in dish gardens.**

1. **Grades 3-5**

2. **Grades 6-8**

3. **Grades 9-12**

DISH GARDENS

- Dish Garden of plant life. Please see OSU Fact Sheet HLA-6451 <https://extension.okstate.edu/fact-sheets/dish-gardens.html> for more information.
- Criteria for judging will be (1) compatibility and arrangement of plants, potting media, and container (2) attractiveness and originality (3) appropriate size of plants for container. Dish Gardens may feature succulents, carnivorous plants, or foliage plants.
- **Dish Gardens should be no larger than 15 inches in diameter, length, width, or height, and weigh no more than 15 pounds and contain at least 80% living plant material.** Dish Garden should feature at least 3 different species of plants.

4. **Grades 3-5**

5. **Grades 6-8**

6. **Grades 9-12**

RESIDENTIAL LANDSCAPE DESIGN DRAWING

Develop a landscape design/drawing for the provided residence. Base maps should be printed on 11" x 17". Once printed verify scale is 1 inches =10 feet. Design drawings are to be made directly on the provided base maps. Use provided examples of landscape symbols to draw and/or trace on the base map. Use the provided color rendered landscape drawings for example of effective designs and color techniques. Reference <https://agriculture.okstate.edu/departments-programs/hla/research-extension/youth/landscape-design-fair-entry.html>

- Use white 11" x 17" paper to horizontal exhibit landscape drawings
- Create a column on the right side of sheet for title block, 2" wide from top of drawing to bottom. List the following in INK: Scale, symbols of plants, numbers representing trees, shrubs and plants and how many of each plant were used in the landscape. Example; 1-Rose (6), 2 –Oak Trees (4), 3-Petunia (3 Dozen or 36).
- Name date, and club
- Drawing is top view (plan view)
- Use the scale provided: 1in = 10ft
- Hand drawings or CAD drawings will be accepted
- Draw plant symbols at mature plant size
- Use the plant symbols and the materials symbols provided
- Drawings must be full color
- Walkways should be 3 ft or 5 ft wide
- Patio(s) are required on the back of the house

- In the drawings use a line to indicate the planting beds. All small trees, shrubs, and perennials should be inside a planting bed. Large trees could be found in the lawn or inside planting bed

7. **Grades 3-5**

8. **Grades 6-8**

9. **Grades 9-12**

HORTICULTURE IN OUR LIVES POSTER EXHIBIT

- Choose a fruit, vegetable, nut, spice, or beverage (tea, coffee, chocolate) crop, and create a poster depicting one of the following topics related to that crop:
 - a. History (domestication process, global spread via immigrants, etc.)
 - b. Production
 - c. Use in different cultures
 - d. Use in different processed foods

10. **Grades 3-5**

11. **Grades 6-8**

12. **Grades 9-12**

MODELS

Model cold frame or hoop house - mounted on a piece of painted plywood no larger than 12" x 12". Must include an explanation of the purpose of the structure, examples of potential uses, correct orientation in the landscape, and materials necessary in its construction. Explanation should be typed or handwritten on a laminated piece of white paper no larger than 8.5" x 11" and be securely attached to the model.

13. **Grades 3-5**

14. **Grades 6-8**

15. **Grades 9-12**

Model vegetable garden – mounted on a piece of painted plywood no larger than 12" x 12". Must include at least 5 different vegetables, show appropriate orientation (identify 'north'), and appropriate spacing of plants. Must include an explanation of the layout of the garden, the spacing requirements of the selected plants, the dates each chosen vegetable would be planted/harvested, and any support structures (trellises, cages, etc.) necessary. The explanation should be typed or handwritten on a laminated piece of white paper no larger than 8.5" x 11" and be securely attached to the model. All pieces of the model must be handmade (no store bought fences, mini vegetables, etc.)

16. **Grades 3-5**

17. **Grades 6-8**

18. **Grades 9-12**

PECAN INFORMATION EXHIBIT

Eligibility: Any 4-H member interested in learning more about pecans and the pecan industry may prepare an exhibit. A notebook should be included in the display. The exhibit should provide information about the pecan industry such as history, importance to state, health benefits & nutrition, uses, production, processing, storage requirements or other topics pertaining to pecan. The exhibit should increase the public awareness of the importance and impact of the specific sector of the pecan industry. The notebook should include any involvement the exhibitor has had with teaching others, giving talks or demonstrations, preparing pecan foods, planning programs, producing pecans, field trips, etc. The notebook may be typed or handwritten and should include pictures.

Criteria for judging:

- 30 points completeness of educational lesson
- 30 points public appeal
- 40 points notebook

19. Jr. Division (**Grades 3-7**)

20. Sr. Division (**Grades 8-12**)

SECTION Q325 –4-H COMPANION ANIMALS AND LIVESTOCK

- All Companion Animal exhibits should focus on one of the following: 1) Animal Health and/or Nutrition 2) Good Husbandry and/or Grooming 3) Training and/or showing 4) Service and/or Civic Engagement 5) Career exploration in companion animals and livestock.
- Animals for this section can be categorized as companion animals (birds, dogs, cats, fish, rabbits, guinea pigs, etc.) or livestock (beef, dairy, equine, goats, poultry, sheep, swine, etc). This section is not to include animals considered wildlife (deer, pheasants, wild birds, turkey, etc.)

Companion Animal and Livestock Poster illustrating one of the following 1) Animal Health and/or Nutrition 2) Good Husbandry and/or Grooming 3) Training and/or showing 4) Service and/or Civic Engagement 5) Career exploration in companion animals and livestock..

1. Jr. (**Grades 3-7**)
2. Sr. (**Grades 8-12**)

Companion Animal and Livestock Display illustrating one of the following 1) Animal Health and/or Nutrition 2) Good Husbandry and/or Grooming 3) Training and/or showing 4) Service and/or Civic Engagement 5) Career exploration in companion animals and livestock. Space for the booth is 36"x48". Back can be 4 feet high. Display must be free-standing. Models, photographs, posters or other means for display may be used.

3. Jr. (**Grades 3-7**)
4. Sr. (**Grades 8-12**)

Companion Animal and Livestock Photo Story Board illustrating one of the following 1) Animal Health and/or Nutrition 2) Good Husbandry and/or Grooming 3) Training and/or showing 4) Service and/or Civic Engagement 5) Career exploration in companion animals and livestock. Story Board should contain 4 to 6 photos attached to the surface of a white or colored foam core, poster, or mat board no larger than 14" x 22". Each photo should contain a caption. Judging criteria will emphasize content first and photo composition second. Photos are to be taken by the exhibitor.

5. Jr. (**Grades 3-7**)
6. Sr. (**Grades 8-12**)

Companion Animal and Livestock Single Photo Entry illustrating one of the following 1) Animal Health and/or Nutrition 2) Good Husbandry and/or Grooming 3) Training and/or showing 4) Service and/or Civic Engagement 5) Career exploration in companion animals and livestock. Prints must be no smaller than 3.5 inch x 5 inch and no larger than 5 inch x 7 inch. Digital photos may not be manipulated or altered except for color and contrast adjustments, cropping, exposure adjustments, and red eye reduction. Prints must be securely attached to the surface of a poster board or mat board. No double matting, use of multiple layers or more than one color. The entire print must be seen and cannot be masked in any way. Boards must be no larger than 10" x 10". Captions are optional, but not required. Photos are to be taken by the exhibitor.

7. Jr. (**Grades 3-7**)
8. Sr. (**Grades 8-12**)

Other Companion Animal and Livestock Items Exhibits must have a 3" x 5" inch note card describing the exhibit, what was done to create or prepare this exhibit and how the exhibit relates to 1) Animal Health and/or Nutrition 2) Good Husbandry and/or Grooming 3) Training and/or showing 4) Service and/or Civic Engagement 5) Career exploration in companion animals and livestock. Posters, photo, displays and journals are not allowed in this category. Exhibit size limited to 4'x4'x4' due to space limitations.

9. Jr. (**Grades 3-7**)
10. Sr. (**Grades 8-12**)