FORWARD

The Atoka County Free Fair is for the benefit of all the citizens of the county.

A county fair is one of the greatest educational institutions today. Fairs stimulate interest in the improvement of livestock, crops and improved home practices.

Whether you win prizes at the fair is not the important thing. By comparing your work with that of your neighbors and those in other parts of the county, you can get ideas that will be of help to you down through the years. We particularly urge you to encourage the boys and girls in the fair, for they are the future.

ATOKA COUNTY FAIR BOARD MEMBERS

District 1 .......................... Jody Goodson  District 3 ........................ TJ Smoot
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District 2 .......................... Zach Hunt
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District 2 .......................... Carla Douglas
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ATOKA COUNTY COMMISSIONERS

District 1 ................................................................. Marvin Dale
District 2 ................................................................. Gilbert Wilson
District 3 ................................................................. Shane Tomlinson

ATOKA COUNTY EXTENSION STAFF

Harold Stephens ......................................................... Ext. Educator, Agriculture/4-H & CED
Barbara Elkins ......................................................... Ext. Educator, Family & Consumer Sciences/4-H
Judy Elliott ............................................................... Extension Administrative Support Specialist
SCHEDULE OF EVENTS

Tuesday, September 10, 2019
1:00 pm – 7:00 pm  Entries accepted at Fair Barn -- NOTE TIME!!!

Pre-register poultry by Sept 5, 918-381-2684 or 580-889-7337!!!

NEW DAY!!! All poultry and rabbits must be entered Friday, Sept 13, 8:00 – 10:00 am at which time they will be blood tested. They will be shown and judged Friday, Sept 13, 11:00 am. Again this year, exhibitors will take their animal to the judge and “show” it for judging.

Wednesday, September 11, 2019
9:00 am – 4:00 pm  Barns closed to public for judging
4:00 pm – 6:00 pm  Barns open to public

Thursday, September 12, 2019 – YOUTH DAY
9:00 am  Exhibits open for viewing
5:30 pm  Petting Zoo, Carnival Games
6:00 pm  Register for Pet Parade
6:00 pm  Pet Parade for Adults and Youth
6:30 pm  Register for Chili Cook-Off and Homemade Ice Cream Contest
6:30 pm  Judge Chili and Ice Cream
6:30 pm  Corn Hole Contest ($10 for 2-man team)
6:45 pm  Eat Chili and Ice Cream -- $5.00 per person
8:00 pm  Barns close for viewing

Friday, September 13, 2019 – YOUTH DAY
8:00 am – 10:00 am  Enter Poultry & Rabbits
9:00 am  Check-In for Livestock Show
9:00 am  Exhibits open for viewing
6:00 pm  Carnival Games

10:00 am  Livestock Show
11:00 am  Poultry Show
4:00 – 6:00 pm  Barns close for viewing and entries must be picked up

Please do not take your items before 4:00 pm on Friday!
GENERAL RULES
4-H DIVISION

1. Each exhibitor must be a bonafide member of Atoka County 4-H Club. The 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.

2. All entries must have been made since Oct. 1, 2018 and cannot be entered more than one time, except for classes which are collections that are added to in successive years. The entries must be made by the person who exhibits the articles. Members are eligible to enter as many classes as desired, but many have only one entry per class.

3. Entry time will be 1:00 pm to 7:00 pm, Tuesday, Sept 10, with Poultry & Rabbits accepted on Friday, Sept 13, 8:00 – 10:00 am only! No one allowed in exhibit area during time entries are taken except designated persons. PRE-REGISTER POULTRY BY THURS, SEPT 5, BY CALLING ADAM DAVIS, 918-381-2684 or OSU EXTENSION 580-889-7337. Need to know how many are coming!

4. Exhibits will be judged Wednesday, Sept 11 during the morning. The building is closed during this time.

5. Entries released Friday, Sept 13, 4:00 – 6:00 pm.

6. If there is only one entry in a class, that entry will be judged on quality of work done and will be placed accordingly.

7. Only standard canning jars may be used in the food preparation class. All jars must have proper canning lids and rings.

8. All foods products are to be on a paper plate covered with clear plastic wrap. Zip lock bags work well.

9. All exhibits in the Atoka County Fair are entered and displayed at the risk of the exhibitor. The Atoka County Fair Board and OSU Extension Center staff will exercise due care to protect exhibits, however, they cannot accept the responsibility for loss or damage due to conditions imposed by large crowds, building in which exhibits are house, or space available for exhibits. If the exhibit has a lot of sentimental value, the exhibitor should consider whether such exhibits should be exposed to the hazards of the fair.

10. Exhibits selected for the Tulsa State Fair competition will be tagged with a special purple and white Sticker – “Selected for State Fair.” They should be left at the end of the County Fair for Extension staff to take to Tulsa Fair.

11. Exhibits should be permanently signed and dated, in an inconspicuous location, if material permits. 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.
SECTION 300
4-H POSTER ART EXHIBIT
Posters must be constructed on poster board, 14" x 22" (1/2 of a poster board). They may be horizontal or vertical. Posters 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 all posters with clear plastic film. Posters must be signed and dated on the back in permanent marker before laminating. If not marked the judging committee may mark or punch. The text should be readable from at least 10 ft. away.

Individual 4-H member is restricted to those exhibits designed for his or her age group. All exhibitors must be at least 8 years old and in 3rd grade by September 1 to exhibit.

The 4-H member’s name, age before September 1 and county should be on the back of the poster in the upper left hand corner.

NOTE: 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 http://4h.okstate.edu/educators/4-h-name-and-emblem

BEGINNER DIVISION (grades 3-5)
1. 4-H promotional poster designed to recruit 4-H members, volunteers or promote any 4-H event or designed to promote any 4-H project.
2. Poster designed to promote 4-H using the national campaign “4-H Grows Here”.
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 or promote any 4-H event or designed to promote any 4-H project.
5. Poster designed to promote 4-H using the national campaign “4-H Grows Here”.
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 or promote any 4-H event or promote any 4-H project.
8. Poster designed to promote 4-H using the theme national campaign “4-H Grows Here”.
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 301
4-H EDUCATIONAL BOOTH DISPLAY
This must be an in-depth look at a 4-H project or projects. Space for the booth is 3 feet deep and 4 feet wide (with sides extended for display.) Back can be 4 feet high. There will be no solid dividers between booths. Use lightweight materials for ease in transporting. Display must be free-standing. Models, photographs, posters or other means of display may be used. Display may be prepared by an individual or group from a county. Criteria for judging will be (1) effectiveness of the message, (2) appropriateness to the theme, (3) interest and attractiveness to the public.

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:
• Promotion of a specific 4-H project, member recruitment, current youth issue, event, etc.
• Community Service
• The national campaign “4-H Grows Here”

EXHIBITS IN THIS SECTION MUST PROMINENTLY DISPLAY A 4-H CLOVER OR MENTION 4-H. When using the official clover with the H’s, the tail should curve to the right and the words 18 U.S.C. 707 must appear in the lower right leaflet, except for hand drawn clovers. For more information on proper use of the 4-H clover please refer to http://4h.okstate.edu/educators/4-h-name-and-emblem

1. Educational Booth Display (other than Community Service or “4-H Grows Here”)). Display may be project area, member recruitment, current youth issue, event, etc. Community Service Booth Display – Sharing about a community service that 4-H member or county group has done. Should include pictures, examples, and scope of projects. The impact on others will be an added criterion for judging. Projects should be the extension of a 4-H project area.
2. Community Service Booth Display – Sharing about a community service that a 4-H member or county 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 national campaign “4-H Grows Here”
SECTION 302 - 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**, and may enter only one exhibit per class in that 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 photos 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 Judge. Photos will be disqualified if in a frame.

**TITLE, CAPTIONS AND OTHER REQUIRED INFORMATION**: On the front of the board, there must be a title (i.e. My Trip to the Zoo) and each photo must have a caption giving the viewer more information about the photograph. The back of each board must include the exhibitor’s name, county, number of years in 4-H photography project, camera type (digital SLR, smartphone, digital point and shoot or 35mm film) and megapixels (if camera if digital). **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. The entire print must correctly identify what is wrong and provide an appropriate solution to prevent the mistake.

**PHOTOGRAPHY EXHIBITS**

**Level 1: Focus on Photography**

For members who have beginning skill level.

1. Four photos, one from each of the following categories: people, animals, plant life and scenery.
2. Four photos of people doing different things, showing a variety of activities, camera angles and lighting choices.
3. Four 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 4 photos telling a story or illustrating a single event.
5. Best individual photo made this year.

**Level 2: Controlling the Image**

For members who have intermediate skill level.

11. Four 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 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).
13. Four photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of the board must explain the ideas being illustrated.
14. Four photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of the board must explain the ideas being illustrated.

**Level 2: Controlling the Image**

For members who have intermediate skill level.

11. Four 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 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).
13. Four photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of the board must explain the ideas being illustrated.
14. Four photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of the board must explain the ideas being illustrated.
15. Four 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 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 photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of the board must explain the ideas being illustrated.
18. Four photos showing effect (lighting, media, techniques and processes). The caption for each photo or the title of the board must explain the ideas being illustrated.

**Senior Classes – Ages – Grades 8-12**

For members who have beginning skill level.

6. Four photos, one from each of the following categories: (people, animals, plant life and scenery.
7. Four photos of people doing different things, showing a variety of activities, camera angles and lighting choices.
8. Four 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 4 photos telling a story or illustrating a single event.
10. Best individual photo made this year.
Level 3 Mastering Photography
All Ages
For members who have advance skill level.
19. Four 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 outstanding “people” pictures.
21. Four 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, form core or mat board 14” x 14”. Attach up to 1/2 page of written explanation of the alterations to the back of the exhibit.
23. Junior (grades 3-7)
24. Senior (grades 8-12)

Digitally altered photograph/photographic illustration taken with a digital camera by the exhibitor. Alterations are beyond common photographic 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 securely attached to a single black or white foam core or poster board 14” x 14”. Attach up to 1/2 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 photographic techniques of red eye removal, cropping, etc. Must be securely attached to a single black or white foam core or poster board 14” x 14”. Attach up to 1/2 page of written explanation of the alterations to the back of the exhibit. Trademarked images may not be used.
27. Junior (grades 3-7)
28. Senior (grades 8-12)

SECTION 303
4-H EXPRESSIVE ARTS EXHIBITS
Juniors – Grades 3-7 ~ Seniors – Grades 8-12
Individual members may enter only one exhibit per class. Exhibits in all classes are limited to items that cannot be exhibited in other sections.

Exhibits must be permanently signed and dated in an inconspicuous location, if size and material permits. Ceramics should be signed before firing. Judge or judging committee at the state level may mark exhibit with fair and year (for example: TSF 2019), if not signed and dated. Effort will be made to mark in an inconspicuous place.

CLASS
1. Jr. Fine Art — Pencil, Charcoal, pastel, chalk, ink
2. Sr. Fine Art — Pencil, Charcoal, pastel, 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. Ceramics — Glazed (maximum of one piece)
8. Sr. Ceramics — Glazed (maximum of one piece)
9. Jr. Ceramics — Stained (maximum of one piece)
10. Sr. Ceramics — Stained (maximum of one piece)
11. Jr. Pottery — Original design made from clay using a process of hand molding or on a potter’s wheel
12. Sr. Pottery — Original design made from clay using a process of hand molding or on a potter’s wheel
13. Jr. Print Process Article — Block printing and other printing methods
14. Sr. Print Process Article — Block printing and other printing methods
15. Jr. Nature Craft — Article made from natural materials including weaving or basket making
16. Sr. Nature Craft — Article made from natural materials including weaving or basket making
17. Jr. Bead Craft Article
18. Sr. Bead Craft Article
19. Jr. Leathercraft — Kit
20. Sr. Leathercraft — Kit
22. Sr. Leathercraft — Original Design
23. Jr. Handcrafted Wax Candle
24. Sr. Handcrafted Wax Candle
25. Jr. Handcrafted Gel Candle
26. Sr. Handcrafted Gel Candle
27. Jr. Puppet
28. Sr. Puppet
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)
SECTION 304

4-H Science & Technology Exhibits

The 4-H technology exhibits are open to all grades. They will be judged separately in two (2) grade groups. 

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

Every exhibit must be labeled on the back with the following information: Name, Club, County, Grade before September 1 and date poster or exhibit was made. Copy written material such as professional photos, books, publications or items on the internet should not be used as original.

Exhibits displayed as posters must be constructed on poster board 14” x 22” (1/2 of a poster board). They may be horizontal or vertical. 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 poster displays purposes, exhibitors are encouraged to laminate or cover all posters with clear plastic film. Text of posters should be readable from at least 10 ft. away.

Juniors ---- Grades 3-7 Seniors ---- Grades 8-12

Flat flyer (one-sided) designed by the exhibitor to promote a club or county 4-H education program or activity. Computer generated flat flyer (8-1/2” x 11” or 8-1/2” x 14”). 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 8-1/2” x 11” or 8-1/2” x 14” before folding.) Attach 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” – ½ of a poster board. Attach a large envelope to the back of the 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 Cloverbud 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 3’ when the sides are extended for display. Commercially available “Science Fair Presentation boards” are encouraged. First place exhibits in each class will be displayed. Second place and subsequent exhibits may be displayed based upon space available and judges’/committees’ discretion.

5. Juniors
6. Seniors

Digital Media – 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 (found on the 4-H enrollment card).

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 (grades 3-7) - Draw a Scientist
9. Senior Poster (grades 8-12) - Careers in STEM


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. The 4-H GPS/GIS exhibits will be judged in two (2) grade groups. Juniors, grades 3-7; Seniors – grades 9-12.

Every exhibit must be labeled on the back with the following information: Name, Club, County, Grade and date poster, map or exhibit was made. Posters/Maps must be 14” x 22” – ½ of a poster board. Exhibitors are encouraged to laminate all posters or cover them with clear plastic film. Maps may be affixed to poster board. The map itself doesn’t have to be the full 14” x 22”.

Displays must be free standing and not be larger than 3’ x 3’ (width x depth) with sides extended for display. 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 contests, description & photograph of the location in which the box will be located. (Check Geocaching .com for instructions on placing and describing)

12. Juniors
13. Seniors
Hand drawn map. Map can either be informational or directional. Attach a one 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 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. The robot can be either programmable or remote controlled. The robot can be created by an individual or a group. The 4-H robotics exhibits are open to all ages. They will be judged separately in two age groups. Juniors and Senior. Juniors – grades 3-7; Seniors – grades 9-12.
Every exhibit must be labeled on the back with the following information: Name, Club, County, Age before September 1 and date poster or exhibit was made.

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

Projects Group Developed by two 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).

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

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.
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:
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

**The Future of Agriculture Research Challenge Displays**
The future of agriculture research displays will illustrate current research and forward/futuristic thinking that is changing the field agriculture and agricultural based careers. 4-H members will research current trends, future thoughts and ideas for continuing to effectively feed the world. These projects should have a minimum of three scholarly references identifying where and when the information was published.

These projects may:
- Describe the challenging need for increased food production for a growing population
- Describe a new agricultural production technique or an emerging agricultural technology that will enhance or improve our agricultural and food production systems,
- Illustrate a new vision for the future of agriculture
- Describe new STEM-based careers in agriculture.

Research displays should use research-based information and resources to answer questions similar to the following, “What will the future of Agriculture look like?”, “How will agriculturalist feed an ever-growing population?” or “What are future careers in agriculture?”

Rubber Band-Powered Vehicle Design Challenge
Design a wheel-driven vehicle, powered only by one rubber band (size #64 approx. 1/4” wide by 3/4” long by 1/32” thick.), which will transport a one-pound “load” (box of baking soda approx. size: 3 1/2” x 4 1/2” 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 vehicle, powered only by one rubber band.

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

Wind Power
- 2011 NYSD Wired for Wind: https://4-h.org/parents/national-youth-science-day/wired-for-wind/

Solar Power
- Solar Powered Housed 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

32. Juniors
33. Seniors

**References:**
- 2011 NYSD Wired for Wind: https://4-h.org/parents/national-youth-science-day/wired-for-wind/
- WearTec Curriculum Series books 1-4: https://shop4-h.org/products/weartec-1-circuitry-leaders-guide

The Information was published.
SECTION 305
4-H 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/](http://physics.usc.edu/~gould/ScienceFairs/)

Information about Oklahoma Science Fairs - [http://ossef.ecok.edu/](http://ossef.ecok.edu/)

Displays must be free standing and are limited to 36” x 36” (width x depth) when sides are extended. Commercially available “Science Fair Presentation Boards” are encouraged. Counties may enter one exhibit in each class. Ribbons will be placed on the top ten (10) in each class. First place exhibits in each class will be displayed. Second place and subsequent exhibits may be displayed based upon space available and fair committees’ discretion.

CLASS

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 typewritten pages.
3. Advanced Division (Grades 9-12) - A display and a written report about the project that includes an interview with a scientist or someone who works in the area that is being studied. Reports should be three to five pages in length.
4. Team Exhibit (All Grades) - Team may include a maximum of three members. - A display and a written report about the project. It is recommended that it includes an interview with a scientist or someone who works in the area that is being studied. Reports should be three to five pages in length.

SECTION 306
Design and Construction

Fall 2020 – All Design and Construction projects will be REQUIRED to have the Skill Mastery Sheet securely attached to the project. Use a safety pin and attach directly to the exhibit when at all possible. NEVER attach sheet to a hanger! The sheet MUST be completed by the 4-H member.

The Skill Mastery sheet [http://4h.okstate.edu/literature-links/lit-online/family-consumer-science/fabric/skill-mastery-sheets](http://4h.okstate.edu/literature-links/lit-online/family-consumer-science/fabric/skill-mastery-sheets) is an education tool to guide project work. Click hyperlink “Sample Technique Cards” to find instruction for many of the techniques noted in the skill sheets (i.e. facings, zippers, hems, fasteners, etc.). Additional hyperlinks to skill sheets and technique cards provided throughout categories. 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 hand written. 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.

A county may enter one (1) exhibit per class. A 4-H member may enter one (1) exhibit per class. Hangers will not be returned.

Apparel Design & Construction – (ADC)

Level 1 (Grades 3-4) – Be sure to review section 306 general instructions. Project must have at least two (2) of the skills/techniques for the ADC Level 1 project work. Some classes have specific Level 1 skills/techniques which must be incorporated into the exhibit.

01. 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.

02. 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.

03. Non-human Apparel (doll, pet or livestock garment/costume, or any other similar item)

04. Simple Sewn Fashion Accessory (sewn hat, scarf, bag, wallet, purse, mittens, string-pack or textile based jewelry, or any other similar sewn fashion accessory)

05. 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 Mastery Sheet: Crochet, Knitting.

** See Class 23 All Grades Apparel Design Project Portfolio

Level 2 (Grades 5-6) - Be sure to review section 4306 general instructions. Project must have at least two (2) of the skills/techniques for the ADC Level 2 project work. Some classes have specific Level 2 skills/techniques which must be incorporated into the exhibit.

06. Lined or Unlined One-piece garment with facing (top, robe, jacket, dress, jumpsuit, vest, costume, or any other similar one-piece garment with a facing). Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 2 Mastery Sheet: Facing, Interfacing, Seam Finish.

07. Lined or Unlined Bottom with one or more: pocket, waistband or facing (shorts, capris, pants, skirts, costume, or any other similar bottom.) Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 2 Mastery Sheet: Facing, Pocket, Waistband, Zipper. No invisible zippers level 2. Waistband can be a flat front band and elastic back.

08. Lined or Unlined Two-piece Garment with one or more: pocket, waistband or facing (coordinating top and bottom, jacket/vest with bottom/dress, PJ’s, costume, or any other similar two-piece garment). Exhibit must have two (2) or more of the specific skills/techniques listed under any of the following headings in the Level 2 Mastery Sheet: Facing, Pocket, Waistband. No invisible zippers level 2. Waistband can be a flat front band and elastic back.

09. Non-human Apparel (doll, pet or livestock garment/costume, or any other similar item)

10. Sewn Fashion Accessory (sewn hat, scarf, bag/string-pack/purse/backpack/hip pack, wallet, or textile based jewelry, or any other similar sewn fashion accessory)

11. 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 2 Mastery Sheet: Crochet and/or Knitting.

** See Class 23 All Grades Apparel Design Project Portfolio

Level 3 (Grades 7-8) - Be sure to review section 306 general instructions. Project must have at least two (2) of the skills/techniques for the ADC Level 3 project work. Some classes have specific Level 3 skills/techniques which must be incorporated into the exhibit.

12. 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.

13. 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.

14. 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 Buttonholes, Fasteners, Interfacing/Underlining, Lining, Pockets, Sleeves, Zipper.

15. Sewn Fashion Accessory with closure/fastener and seams. (Examples: hat/ earmuffs, wallet, bag/purse/backpack, costume accessory (such as gloves, apron, bustier), 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.

16. Fashion Garment or Accessory created by Knitting/Crochet/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.

17. “Redesigned” Original Apparel/Fashion Garment with before and after (garment 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 23 All Grades: Apparel Design Project Portfolio

Level 4 (Grades 9-12) – Be sure to review section 306 general instructions. Project must have at least two (2) of the skills/techniques required for the ADC Level 4 project work. Some classes have specific Level 4 skills/techniques which must be incorporated into the exhibit.

18. 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/Underlining, Lining, Seam, Seam/Finish, Zipper.

19. 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/Underlining, Lining, Seam, Seam/Finish, Zipper.

20. Fashion Garment or Accessory created by Knitting/Crochet/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.

21. 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; wheel chair - 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.

22. 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 23 All Grades: Apparel Design Project Portfolio

All Grades - ADC

23. 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.

**Level 2 (Grades 5-6)** - Be sure to review section 306 general instructions. Project must have at least two (2) of the skills/techniques required for the IDC Level 2 project work. The following headings on the Mastery Sheet will apply to many of the projects listed: Buttons, Casing, Gathering, Hem, Seam, and Seam Finish.

24. **Home Accent Kitchen**: apron, food caddy/warmer, appliance cover, message center/board, simple curtains, table cloth, simple table runner, hand/dish towel, potholders, hot pad, lunch bag, (1) placemat, (2) napkins, or any other similar item for the kitchen. All projects should illustrate some skill mastery of hand or machine sewing techniques.

25. **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/bar n/etc. No fashion accessory type bags.

26. **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.

27. **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.”

   **See Class 40 All Grades: Special “Needs” Accessory**
   **See Class 41 All Grades: Seasonal Décor non fabric**
   **See Class 42 All Grades: Interior Design Project Portfolio**

28. **Home Accent Bedroom**: Examples: two pillow cases, 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.

29. **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/bar n/etc. No fashion accessory type bags.

30. **Home Accent Storage**: bucket caddy, hanging storage unit, under-bed storage, basket liners, storage box, scrapbook cover, or any other similar item.

31. **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 40 All Grades: Special “Needs” Accessory**
   **See Class 41 All Grades: Seasonal Décor non fabric**
   **See Class 42 All Grades: Interior Design Project Portfolio**

**Level 3 (Grades 7-8)** - Be sure to review section 4306 general instructions. Project must have at least two (2) of the skills/techniques required for the IDC Level 3 project work. The following headings on the Mastery Sheet will apply to many of the projects listed: Applique, Buttons and Buttonhole, Crochet, Darts, Facing, Fasteners, Hem, Interfacing/Underlining, Knitting, Lining, Pleats, Pockets, Seam, Seam Finish, Staystitching, Trim(s), Top Stitching and Zipper.

32. **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 55 or 56.

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.

34. **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.”**

35. **Design Story Board** – 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.

**See Class 40 All Grades: Special “Needs” Accessory**

**See Class 41 All Grades: Seasonal Décor non fabric**

**See Class 42 All Grades: Interior Design Project Portfolio**

36. **Home Accent Outdoors/Patio/Camping** – any combination of a two-piece coordinate (picnic/BBQ accessories, patio furniture cushions/cover, 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. **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.

38. **Recycled/Upcycled Furniture** – painted, stained, refinished, decoupage, tiled and/or upholstered furniture, or any other appropriate technique not stated. MUST include before and after (furniture displayed, showing how it was designed to fit a room’s décor) photos, a description of the 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 40 All Grades: Special “Needs” Accessory**

**See Class 41 All Grades: Seasonal Décor non fabric**

**See Class 42 All Grades: Interior Design Project Portfolio**

**All Grades - IDC**

40. **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.

41. **Seasonal Décor non fabric/textile**: wall hanging, centerpiece, decoration, or any other similar item not stated. Exhibit must be constructed primarily from fabric or any textile based product. It can have some textiles (i.e. lace, ribbon, buttons, etc.)

42. **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.

Level 1 & 2 (Grades 3-6) - Be sure to review section 4306 general instructions. Project must have at least two (2) of the skills/techniques required for the HTDC Level 1 project work. See sample technique cards for some of the HTDC techniques.

43. 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.

44. Decorative Textile Technique: Skill techniques(s) being mastered/learned - screen printing, transfer printing, fabric pens, tie dye, batik, stencilling, block printing or a similar method applied to a textile foundation such as a piece of clothing (shirt/apron/accessory/etc.), home décor (wall-hanging/picture/pillow/rug/pillowcase/etc.) purchased or sewn by the exhibitor. Any skill technique listed in classes 45-48 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.

45. Textile Fabric Creation: Skill technique(s) being mastered/learned - weaving (beading or textile), latch-hook, braiding, macramé, knitting, crocheting, 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 fiber. Textile is to be constructed into a finished end product no larger than 16” x 16” or an equal surface area (examples of equal surface area: fireplace mantel scarf 6” x 42”). Knitted or crocheted exhibits refer to Level 1 & 2 Mastery Sheets for specific skills/techniques. Focus is on 1) the mastery of one or more textile technique(s) used to produce a textile which is incorporated into an end 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 44, 46-49 are not to be exhibited in this class.

46. 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.

47. 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. Focus 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.

48. Machine Pieced or Appliquéd Item –Skill technique(s) being mastered/learned is machine piecing and/or applique in the creation of a “textile/fabric” and then incorporated into an end product. Finished product no larger than 16” x 16” or an equal surface area (examples of equal surface area: fireplace mantel scarf 6” x 42”). Focus is on 1) the mastery of one or more “machine pieced or appliquéd 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.

49. 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. Focus is 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 58 All Grades: Hobbies and Textiles Design Project Portfolio

** See Class 59 All Grades: Quilts of Valor Community Service
Level 3 & 4 (Grades 7-12) - Be sure to review section 4306 general instructions. Project must have at least four (4) of the skills/techniques required for the HTDC Level 3 & 4 project work. See sample technique cards for some techniques in HTDC.

50. 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.

51. Decorative Textile Technique: Design and construction of an apparel/fashion accessory or home décor item from fabric created using two (2) or more decorative textile techniques described in class 44. Any skill technique listed in classes 52-57 are not to be exhibited in this class. Focus is on 1) the mastery of technique, 2) the creative and appropriate blending of two or more decorative textile techniques, 3) fabric/trim fittingly showcased in a finished product, and 4) mastery of the use of the elements and principles of design.

52. Textile Fabric Creation: Design and construction of an original “fabric/trim” using at least two (2) techniques described in class 45. No size limit. Additional techniques might include but are not limited to hand spinning, cotton linter, and tatting. Additional example: shawl, afghan, stool, socks, etc. Fabric and/or trim must be made into a finished product. Knitted or crocheted exhibits refer to Level 3 & 4 Mastery Sheets for specific skills/techniques. Focus is on 1) the mastery of two or more textile technique(s) used to produce a fabric/trim, 2) creative and appropriate use of “fabric/trim” in finished product, and 3) mastery of the use of the elements and principles of design. Any skill technique listed in classes 51, 53-57 are not to be exhibited in this class.

53. Needle Art by Hand: Two (2) of the following skill technique(s) being mastered/learned and applied to clothing (shirt/apron/jacket/accessory/etc.) or home/school/office décor (wall-hanging/picture/pillow/rug/pillowcase/quilt/blanket/banner, etc.) by "hand." - 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. Focus is on 1) the mastery of two or more “hand” needle art technique(s), 2) creativity, and 3) 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 55 or 56.

54. Needle Art by Machine: Two (2) or more of these 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 (shirt/apron/jacket/accessory/etc.) or home/school/office décor (wall-hanging/picture/pillow/rug/pillowcase/quilt/blanket/banner, etc.) by "machine." 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 55 and 56.

55. 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) mastery of the use of the elements and principles of design.

56. 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 appliquéd technique(s),” 2) creativity, and 3) mastery of the use of the elements and principles of design.

57. 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. Focus 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 58 All Grades: Hobbies and Textiles Design Project Portfolio
** See Class 59 All Grades: Quilts of Valor Community Service

All Grades - HTDC

58. 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.
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.

59. 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 307
4-H BABYSITTING/CHILD CARE

Refer to member and leader guides for ideas. A county may enter one exhibit in each class. Individual 4-H member can enter one exhibit per class in appropriate grade group.

Please reference the State 4-H Website http://4h.okstate.edu/literature-links/lit-online/family-consumer-science/4HBabysittingChildCareProjectUnitOne.pdf for literature listed below.

Junior (Grades 3-7)
1. Baby Book - Any practical size, minimum of 5 pages covering at least 9-10 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 distinct age and ability levels. Each puzzle must have its own storage container. Puzzles must be sturdy and covered so 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 12. 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)
5. Children’s Book - Written, illustrated and constructed by 4-H’er. May be written for a specific child with text relating to that child or for children of certain age range. Indicate appropriate age range. Construction paper, computer printout, cloth or posterboard 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 babysit. Could include books, puzzles, games, play dough, balls, costumes. Indicate appropriate age child to use each item. Include records of how children 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. Judging committee may mark or punch if not marked. 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.
FOOD PREPARATION EXHIBITS

- Counties may enter one food preparation and preservation exhibit per class. Individual 4-H members can enter one exhibit per class, but are restricted to those exhibits designed for his/her grade group. Educational exhibits must fit 3' x 3' (width x depth) space, with sides extended. Exhibits must be free standing with sides attached. Poster must be constructed on poster board 14" x 22". Posters and displays must be permanently signed and dated on the back prior to lamination. Judging committee may mark or punch if not marked. Text of posters and displays should be readable from at least 10 ft. away.
- 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 food science manuals or any other recipe that fits the exhibit requirements. Cakes must be made from scratch using shortening mixing method (no angel food or chiffon-type). Bread machines may be used for the bread exhibits but bread must be made from scratch - no mixes.
- Dried foods should be exhibited in a sealed, plastic sandwich bag.
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 jars 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.

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 gingerbread recipes)

LEVEL FOUR – Grades 9-12
7. One-half loaf or portion of breads from another culture. Include a one 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 shorten type cake (no angel food or chiffon)

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
9. One pint or half pint jar of jam or jelly processed in boiling water canner
10. Two pint jars of any single canned fruit (not pickled).
11. One pint jar cucumber pickles or vegetable relish
12. One pint jar of salsa/picante sauce

LEVEL THREE – Grades 6-8
12. One pint jar cucumber pickles or vegetable relish
13. One pint or quart of any single canned fruit (not pickled).
14. Dried Fruit (1/2 cup of a single dried fruit).
   Display in a sealed plastic sandwich/freezer bag.

LEVEL FOUR – Grades 9-12
15. One pint or quart jar pressure canned vegetables (no tomatoes or pickles)
16. One quart or one pint jar of plain canned tomatoes.

FOOD SCIENCE & NUTRITION POSTER & EDUCATIONAL DISPLAYS
Posters and Educational Displays must be permanently signed and dated on the back prior to lamination. Judging committee may mark or punch if not marked. Text of posters and displays should be readable from at least 10 ft. away. Posters size is 14” x 22”, Educational Displays 3’ X 3’ (depth x width) and self-standing.

DIVERSITY EXHIBITS

LEVEL TWO AGES – Grades 3-5
17. Educational poster based on breads OR cheeses of another country or countries.

LEVEL THREE & FOUR – Grades 6-12
18. Educational poster based on the foods from another culture. Can be based on a cultural celebration.

NUTRITION EXHIBITS

LEVEL TWO – Grades 3-5
19. Educational poster based on recipe modification for healthful eating

LEVEL THREE – Grades 6-8
20. Educational poster based on the nutritional contributions of fruits and vegetables

LEVEL FOUR – Grades 9-12
21. 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**
22. Educational poster based on food or kitchen safety
23. Educational poster based on protein food safety

**LEVEL THREE – Grades 6-8**
24. Educational poster based on outdoor cookery or grilling
25. Educational display based on a breakfast bread buffet theme. Should include menu, buffet layout, decorations, invitations, and any additional information

**LEVEL FOUR – Grades 9-12**
26. Educational display based on outdoor cookery or grilling
27. Educational poster illustrating a place setting for a specific occasion or menu

**OTHER EXHIBITS**

**LEVEL TWO – Grade 3-5**
25. Educational poster illustrating a place setting for a specific occasion or menu

**LEVEL THREE – Grades 6-8**
26. Educational display based on a breakfast bread buffet theme. Should include menu, buffet layout, decorations, invitations, and any additional information

**LEVEL FOUR – Grades 9-12**
27. Educational poster based on careers in the food industry.

### SECTION 309

**4-H PERSONAL DEVELOPMENT**

- All curriculum for Personal Development are posted on the Oklahoma 4-H Literature Online website at: [http://4h.okstate.edu/literature-links/lit-online/leadership-personal_development/personal-development/personal-development-resources](http://4h.okstate.edu/literature-links/lit-online/leadership-personal_development/personal-development/personal-development-resources)

- **Picture Perfect YOUth curriculum and Leader Guide** – This new 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** – The Heritage Scrapbook project also has a new curriculum. It is posted on the link provided above. This manual provides specific activities for each age division (beginner, intermediate, advanced). Specific activities are required for each age 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 requires 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.

- Posts and educational displays should follow the guidelines on page 2 of the Oklahoma State Fair rule book unless different instructions are provided in the project manual.

- Individual 4-H members can enter one exhibit in each class.

**Beginner Level (Grades 3-5)**

3. That's Write! Poster – Picture Perfect YOUth Beginner Manual: Manners Matter: That's Write!, page 41. The Thank You note subject for 2018 entry is as follows: Your grandmother who lives out of state sent you a $100 gift card to your favorite online store. Include in your thank you note how to plan to spend the money.
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 (Grade 6-8)**

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…, My Family Genogram, My Life Timeline, Cultural History Exploration, Family Holidays. **Optional activities:** My Family Poem, 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)**

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 310**

**4-H POSTMARK**

This exhibit consists of postmarks, not stamps. Exhibits may be illustrated. All postmarks must be mounted on either 8 1/2” x 11” note paper or photo album page (not to exceed 10” x 17”) of any color in a binder. All entries are limited to thirty (30) pages for the collection, plus an additional page for the objective of the collection. Plastic cover pages are acceptable to protect the mounts. Any class may be illustrated. The criteria for judging will be: (1) Appearance and neatness; (2) readability; (3) material relates to chosen topic; (4) brief written description telling purpose of objective of your collection.

**NOTE:** Metered postage marks must not be used in non-metered exhibits and non-metered postage marks 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.

4-H’ers may enter one exhibit per class in their age group.

**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 (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

SECTION 311
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. A 4-H member can have only one (1) exhibit in each class. Exhibits should be permanently signed and dated on the bottom or in another inconspicuous location. If not marked, judges may mark or punch.

1. Electrical projects (Grades 3-7) - Entries to include electromagnets, motors, buzzers and direct current circuit boards
2. Kit Lamps (Kit Construction)-(all ages) - 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 ages) - 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. Rewired Lamp - (all ages) - Workmanship, craftsmanship and electrical wiring and connections will be judged. The lamp will not be judged as a reading lamp.
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 8-12) - 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 312
MODEL ROCKETRY

Posters must be 14” x 22”. Exhibitors are encouraged to heat laminate all posters or cover them with clear plastic film. Display boards should be limited to a maximum of 2’ x 3’ and must have a single 1/4” hole drilled at the top center of board to allow for display. NO LIVE ROCKET ENGINES WILL BE ALLOWED IN ANY EXHIBIT. Text of posters and displays should be readable from at least 10 ft. away. “Homemade rockets could be dangerous to fly.

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
- Age of member
- Whether or not made from kit
- Other pertinent information

4-H members can enter only one exhibit in each class

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.
6. Poster on any other topic pertaining to model rocketry project.

Senior Division (Grades 8-12)
7. Poster or display showing the parts of a model rocket, with an explanation of the purpose of each part
8. Poster or display explaining the function of the
model rocket engine
9. Poster or display showing one or more points from model rocketry safety code
10. Model Rocket made from a kit. Must be safe and functional for flight
11. Model Rocket designed and built by exhibitor. Must be safe and functional for flight.
12. Poster on any other topic pertaining to rocketry.

SECTION 313
4-H WOOD SCIENCE & 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.

These exhibits will consist of articles made by 4-H Club members the past year. The project is not limited to current project idea sheets. It must be proportional and functional and include the same techniques as the listed classes. Miscellaneous and refinished class items should be similar in size to the exhibits in the classes listed for the age division. 4-H member can enter only one exhibit per class and is restricted to exhibits designed for his or her age group.

Wood Science exhibits should be permanently signed and dated in an inconspicuous location. If not marked, judge may mark.

Junior is grades 3-7; Senior is grades 8-12
WOOD SCIENCE
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. Gun, baseball bat, fishing rod or similar rack
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. Gun, curio or display 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.

Jr. is Grades 3-7; Senior is grades 8-12
METALWORK
20. Sr. Metalwork ---- Embossed, tooled, etched
21. Jr. Metalwork---- Soldered
22. Sr. Metalwork ---- Soldered
23. Jr. Metalwork ---- Arc Welding
24. Sr. Metalwork ---- Arc Welding
26. Sr. Metal Work --- Gas Shielded Arc Welding
27. Jr. Metalwork ---- Free Hand Plasma Cutting
28. Sr. Metalwork --- Free Hand Plasma Cutting
30. Sr. Metalwork --- Computer Aided Plasma Cutting

SECTION 314
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 3x5 inch note card 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.
- The 4-H member's name and age must be included (attached to) with the exhibit. 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: http://4h.okstate.edu/literature-links/lit-online/others/shooting
- Posters must be 14” x 22”. For display purposes, exhibitors are encouraged to laminate all posters or cover them with clear plastic film. Posters must be permanently signed and dated on the back. If not marked the judging committee may mark or punch. Posters may be horizontal or vertical. Text of poster should be readable from at least 10 feet away.
- Educational display must be three dimensional should be mounted on a freestanding display board not to exceed 36” x 36” (width x depth) when the sides are extended for display. Commercially available “Science Fair Presentation Boards” are recommended.
If you use text, pictures, drawings, artwork or other information not created by you in your exhibit you must cite the source.

**Junior Division (Grades 3-7)** An explanation must be attached to and/or included in each exhibit listed below describing the subject and what is being illustrated.

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)** An explanation must be attached to and/or included in each exhibit listed below describing the subject and what is being illustrated.

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 315**

**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 [http://4h.okstate.edu/events-and-activities/oklahoma-state-fairs](http://4h.okstate.edu/events-and-activities/oklahoma-state-fairs).

- 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 in bulk at [http://www.bioquip.com/search/DispProduct.asp?pid=1002F](http://www.bioquip.com/search/DispProduct.asp?pid=1002F) or 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 purchased at [http://www.bioquip.com/search/DispProduct.asp?pid=1012AM](http://www.bioquip.com/search/DispProduct.asp?pid=1012AM) or made using the pattern available at [http://4h.okstate.edu/events-and-activities/state-events-activities/oklahoma-state-fairs/ENTOMOLOGYEXHIBITDISPLAYBOX.pdf](http://4h.okstate.edu/events-and-activities/state-events-activities/oklahoma-state-fairs/ENTOMOLOGYEXHIBITDISPLAYBOX.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.

**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 in bulk at [http://www.bioquip.com/search/DispProduct.asp?pid=1012AM](http://www.bioquip.com/search/DispProduct.asp?pid=1012AM) or made using the pattern available at [http://4h.okstate.edu/events-and-activities/state-events-activities/oklahoma-state-fairs/ENTOMOLOGYEXHIBITDISPLAYBOX.pdf](http://4h.okstate.edu/events-and-activities/state-events-activities/oklahoma-state-fairs/ENTOMOLOGYEXHIBITDISPLAYBOX.pdf).
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** –
1. Online/Environmental Science/Forestry

   a. Careers in Entomology
   b. Biodiversity - the roles insects play in the ecosystem
   c. Invasive species
   d. Integrated Pest Management

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) http://4h.okstate.edu/literature-links/lit-online/environmental-science/forestry

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) http://4h.okstate.edu/literature-links/lit-online/environmental-science/forestry

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 317
4-H GEOLOGY

   a. Any eligible 4-H member may participate in collecting, identifying, and preparing rock-mineral-fossil exhibit. Individual 4-H member can enter only one exhibit per class.
   b. Rock-mineral-fossil exhibitors should securely mount their specimens in a wooden display case with a glass or rigid plastic cover. Display box should be one of the
following sizes – Current entomology box - dimensions 19" x 16.5" x 3" or the previous size entomology box which was 18" x 24" x 3.5". Class 1 may be on 18" x 24" plywood or stiff cardboard that has been made suitable for hanging, although a box is recommended.

- Each sample should be mounted 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. Posters must be on 14" x 22" poster board. Each must be signed and dated on the back in permanent marker prior to laminating. Judging committee may mark or punch if not marked. Text of posters and displays should be readable from at least 10 ft. away. Displays should be self-standing and not bigger than 3’ x 3’ (width x depth) when sides are extended.

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.
6. Energy/Petroleum Science Experimental Display (Science Fair type.) 4-H members are encouraged to (a.) use their 4-H projects as the basis for their scientific research and discovery; (b.) use the scientific method to gain an understanding of how things work and the variables that affect them; (c.) take an open and creative approach to problem solving; (d.) learn that a successful outcome is based not on personal opinion but on scientific fact; and (e.) use written and visual communication skills.

Intermediate Division (Grades 6-8)
7. 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.
8. 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.
9. Energy or Petroleum Science Experimental Display (Science-Fair type). 4-H members are encouraged to (a.) use their 4-H projects as the basis for their scientific research and discovery; (b.) use the scientific method to gain an understanding of how things work and the variables that affect them; (c.) take an open and creative approach to problem solving; (d.) learn that a successful outcome is based not on personal opinion but on scientific fact; (e.) use written and visual communication skills.

Senior Division (Grades 9-12)
10. Poster of a press release; collected about the energy information and your interpretation; possibly the Energy Index or other Topic.
11. 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.
12. Energy or Petroleum Science Experimental Display (Science-Fair type.) 4-H members are encouraged to (a.) use their 4-H projects as the basis for their scientific research and discovery; (b.) use the scientific method to gain an understanding of how things work and the variables that affect them; (c.) take an open and creative approach to problem solving; (d.) learn that a successful outcome is based not on personal opinion but on scientific fact; and (e.) use written and visual communication skills.

SECTION 318

4-H WILDLIFE PROJECTS

- Only one exhibit allowed in each class per individual in their respective grade category. 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 http://4h.okstate.edu/literature-links/lit-online/environmental-science/wildlife-and-fisheries

Self-Determined Exhibits: To encourage members to develop their own learning projects, a self-determined exhibit class is included in each category. For ideas and guidelines for exhibits, please see 4-H publication #721 “4-H Wildlife Self-Determined Projects (revised 12/06)” and 4-H NREM 624 “Creating a Wildlife Resource Map”. Text of posters should be readable at least 10 feet away. Include references for information. At least one reference must be from a source other than the internet. 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 or from the internet without permission from the original creator. If 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. If an item (picture, photo drawing, illustration, etc.) that is not protected is used its source must be cited and referenced by using as asterisk (*) or number and the source information placed at the end or bottom of paper, poster, or educational display, following an asterisk or corresponding number. All posters, resource maps and displays must be permanently signed and dated on the back. If not marked, the judging committee may mark or punch. Text of posters and educational displays should be readable from at least 10 feet away. All exhibits on boards must have hangers. Eye screws and wire preferred. No saw-toothed hangers.

OKLAHOMA WILDLIFE (318)
Exhibits entered in this section should relate to a specific category of game or non-game animals or birds.

Junior (Grades 3-7)
1. (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. (See 4-H Lit. #720 updated 12/06.) 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.

2. 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.)

3. Exhibit of the tracks of eight (8) wild animals or birds commonly found in Oklahoma. POSITIVE 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.

4. Self-Determined Exhibit. Posters must be 14” x 22”. Displays must not exceed 3’ x 3’ (width x depth). Possible examples include but not limited to: a display dealing with methods of identification of waterfowl, a poster on wildlife, or environmental careers. See Lit. #721 “Self Determined 4-H Wildlife and Fisheries Project Ideas” revised 12/06 for additional examples.

Senior (Grades 8-12)
5. (A) A collection of (30) plants known to furnish food or cover for wildlife, mounted on food and cover cards or (B) a seed board with (30) plant seeds known to furnish food or cover for wildlife. No more than six (6) varieties may be cultivated crops. At least half of the specimens must have been collected during the current project year. For each plant or seed include three (3) wildlife species that use that plant or seed (on the cover card or board). Species names must be used for both plants and wildlife in addition to the common name. All species must be native to Oklahoma except that up to six (6) may be from cultivated crops.

6. Evaluation of an Oklahoma habitat type that includes a general description of the habitat plant and animal species (species names must be used for plants and wildlife in addition to the common names) that occur within the habitat; a range map showing the habitat’s distribution within Oklahoma; and threats to that habitat. Examples of possible habitats include: playa lakes, tallgrass prairie, cross timbers, and shortgrass prairie. Displays must not exceed 36” x 36” (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.

4-H FISHERIES (318)
Junior (Grades 3-7)
8. Display board showing steps in tying two kinds of fishing knot 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. Displays not to exceed 36” x 36” (width x depth) with sides extended. Posters must be 14” x 22”.
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. Displays not to exceed 36” x 36” (width x depth) with sides extended. Posters must be 14” x 22”.

4-H BIRD (318)
The following OK 4-H online publications would be excellent resources along with those listed in exhibit text for learning more about birds and birding: 4-H NREM 620 “Bird Watching - A Beginning”; 4-H NREM 621 “Using Binoculars”; and 4-H NREM 622 “I Think It Is A...” (#622 contains a list of additional resources). These and other publications listed below are available at the County Extension Office or at http://4h.okstate.edu/literature-links/lit-online/environmental-science/wildlife-and-fisheries

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.
20. 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.
21. 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.

Senior (Grades 8-12)
22. Bird habitat improvement exhibit. Notebook of pictures or drawings explaining how exhibitor is developing or improving a bird habitat. This exhibit may be added to or continued from year to year as the habitat improvements are implemented.
23. Notebook of bird feeder or nest/house observation records for more than current year. Include picture of house or feeder at location used with some analysis of comparisons in observations for years observed. (Observation reports are on OK Lit. Online under Wildlife Fisheries, “Birds and Nest Observation” #772; “Bird Feeding Station” #723; and “Bird Observation” #724)
24. Self-Determined Bird Project. If poster, must be 14” x 22”. If display must not exceed 3’x 3’ (width x depth). 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.

4-H WILDFLOWER STUDY (318)
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 down loaded from internet or computer. “Wildflower Card” (OK 4-H Lit. #718) can be downloaded from OK 4-H Lit. On-Line under Wildlife & Fisheries.
http://4h.okstate.edu/literature-links/lit-online/environmental-science/wildlife-and-fisheries
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. 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 and 4-H Wildlife Project Lit No. 720 “Exhibit Preparation Guidelines Leaders/Members Guide” (revised 12/06) for guidelines.

28. 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.

29. Make a collection and mount press, the 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).

**Senior (Grades 8-12)**

30. 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.

31. Make a collection and mount for display at least fifteen (15) kinds of wildflower seed that show various adaptations to dispersal by wind, water, birds and mammals.

32. 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).

33. Self-Determined Exhibit. If poster must be 14” x 22”. Display must not exceed 3’x 3’ (depth x height). 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/Member Guide” (revised 12/06) for guidelines.

**SECTION 319**

**4-H ENVIRONMENTAL STEWARDSHIP**

- Each piece of exhibits containing more than one item must be labeled with exhibitor's name and county. Posters must be signed and dated on the back.
- Publications listed in this section can be found at http://4h.okestate.edu/literature-links/lit-online/environmental-science/environmental-science

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 be on 14” x 22” poster board and 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 baby food 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)**
   - (14” x 22”) showing or describing the source of your water (lake, aquifer, and private well) and/or what is done to it (water treatment plant, in 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)
(14” x 22”) 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 (14” x 22”) with your 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)
(14” x 22”) 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 baby food 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 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 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)
(14” x 22”) 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. Display must fit a space that is 3’ by 3’ (width x depth) when sides are extended for display.

16. Recycled Item – (Grades 8-12)
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.

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 3’ (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.

**SECTION 320**

**4-H CROPS**

*If anyone is interested in this section, just let your Extension Office know and they will give you a copy of the guidelines and classes.*

**SECTION 321**

**FORAGE FOR LIVESTOCK & WILDLIFE**

*If anyone is interested in this section, just let your Extension Office know and they will give you a copy of the guidelines and classes.*

**SECTION 322**

**4-H HOME GARDENING**

*ALL HOME GARDENING ENTRIES WILL BE DONATED TO LOCAL CHARITY AT THE TULSA STATE FAIR*

Only one exhibit allowed in each class per individual. All exhibitors must be at least 8 years old and in 3rd grade by September 1 to exhibit.

**Display on paper plates.**

1. Potatoes, yellow, white or russet, 3 specimens
2. Potatoes, red, 3 specimens
3. Okra, 6 pods
4. Onions, yellow, 3 specimens
5. Onions, white, 3 specimens
6. Onions, red, 3 specimens
7. Pumpkin, field type (oblong), 1
8. Pumpkin, jack-o-Lantern (round and flat), 1
9. Squash, winter, acorn, 1
10. Squash, winter, butternut, 1
11. Squash, winter, other
12. Eggplant, 2 specimens
13. Squash, summer, zucchini, 2 specimens
14. Squash, summer, yellow straight neck, 2 specimens
15. Squash, summer, yellow crook neck, 2 specimens
16. Squash, summer, patty pan (scallop type), 2 specimens
17. Sweet potatoes, (any variety), 3 specimens
18. Pepper, jalapeno, 5 specimens
19. Pepper, other hot pepper, 5 specimens
20. Pepper, sweet bell pepper, 5 specimens
21. Pepper, banana pepper, 5 specimens
22. Tomatoes, large type, 5 specimens
23. Tomatoes, cherry type (1 ½” or less in diameter), 5 specimens
24. Watermelon, oblong type, 1
25. Watermelon, round type, 1
26. Watermelon, small icebox, 1
27. Red apples, plate of five
28. Yellow Apples, plate of five
29. Pears, plate of five

**HOME GARDEN FOOD BASKET**

This exhibit is a quality selection of five to nine species of mature fruits and/or vegetables from the exhibit list above, items not listed can be used but should not be more than a third of the species utilized. Amounts of fruits and vegetables in this exhibit should be such that they can be arranged in a neat and orderly manner and have good eye appeal. There must be enough of each fruit and vegetable for the judge to determine quality. All fruits and vegetables exhibited must be grown by the exhibitor. No specimens in this exhibit may be entered in another class. Any combination of fruits and vegetables may be used, with the exception of cantaloupe.
The exhibit must be in a container such as a basket or box. One-third (1/3) of the judging will be on how well the exhibit is prepared and presented. Packing such as paper, straw or cloth may be used but the fruits and vegetables should be the main attraction of the exhibit. No artificial plant materials of specimens can be utilized as part of the exhibit.

30. Junior Division, (Grades 3-7)
31. Senior Division, (Grades 8-12)

SECTION 323
4-H HOME GROUNDS

If anyone is interested in this section, just let your Extension Office know and they will give you a copy of the guidelines and classes.

SECTION 324
4-H HORTICULTURE

TERRARIUM

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. All exhibitors must be at least 8 years old and in 3rd grade by September 1 to exhibit.

1. Grades 3-5
2. Grades 6-8

DISH GARDENS

➢ Dish Garden of plant life. A 4-H/OSU Fact Sheet is currently in production. Until it comes available refer to www.thegardenhelper.com/dish-gardens.html or other online resources for project ideas and 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 inch in diameter, 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

SECTION 325
4-H COMPANION ANIMALS

➢ 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 Citizenship.

➢ Companion animals refer to animals utilized as household pets, not livestock or wildlife. In cases of animals (i.e. rabbits, turtles, etc.) that can be represented as a companion or a non-companion animal projects it will be up to the 4-H member to make sure that their entry represents companionship.

➢ The 4-H member’s name, grade, and county must be included attached to the exhibit. Exhibits deemed to be inappropriate will not be displayed.

➢ If you use text, pictures, drawings, artwork, or other information not created by you in your exhibit you must cite the source. See “Copy written material and referencing sources” section at opening of 4-H Division.

Companion Animal 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 Citizenship. Posters must be 14” x 22”. For display purposes, exhibitors are encouraged to laminate all posters or cover them with clear plastic film. Posters must be permanently signed and dated on the back. If not marked the judging committee may mark or punch. Posters may be horizontal or vertical. Text of posters should be readable from at least 10 ft. away.

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

Companion Animal 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 Citizenship. Space for the booth is 3 feet x 4 feet (with sides extended for display.) Back can be 4 feet high. Display must be free-standing. Models, photographs, posters or other means for display may be used. Display may be prepared by an individual or group from a county. Exhibit must prominently display a 4-H clover or mention 4-H.

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

Companion Animal 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 Citizenship. 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
Companion Animal 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 Citizenship. 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.

Me and My Pet Journal A 3 ring binder, 3 inch or smaller, showing activities you and your pet have been doing this past year. Emphasis should be given to 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 Citizenship. It may include but is not limited to training notes, photos of you and your pet working on a new trick, newspaper clippings of you and your pet participating in service projects, breeding records, animal health records and much more clearly labeled as such. Judging emphasis will be placed on the current year’s work.

Other Companion Animal 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 Citizenship. Posters, Photo, Displays and Journals are not allowed in this category.

the exhibitor.

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

5. Jr. (Grades 3-7)
6. Sr. (Grades 8-12)
2019 ATOKA COUNTY FAIR
POULTRY AND RABBIT SHOW

NEW!!! PRE-REGISTER POULTRY BY THURSDAY, SEPT 5, BY CALLING ADAM DAVIS (918) 381-2684 or OSU EXTENSION CENTER (580) 889-7337. Need to know how many birds are coming.

All poultry exhibited in Oklahoma must pass a pullorum-typhoid blood test in order to show at any County Fair. Poultry must either come from certified pullorum free flocks or be blood tested at the County Fair showing they are free from the disease. At the Atoka Fair, poultry will be blood tested on **Friday, Sept 13, 8:00 am to 10:00 am**, as entries are brought.

A trained certified tester approved by the Oklahoma Department of Agriculture will do the testing. Any birds found carrying pullorum-typhoid must be removed from the Fair immediately and destroyed.

**Exhibitors must be present Friday, Sept 13, 11:00 am, to present their animal to the judge for showing and judging. Poultry will not be judged if you are not present to show it!**

All exhibits at the Atoka County Fair are entered and displayed at the risk of exhibitor. The Atoka County Fair Board and Atoka County OSU Extension Center staff will exercise due care to protect exhibits. However they cannot accept the responsibility for loss or damage due to conditions imposed by large crowds, the building in which exhibits are housed, space available for exhibits, or the exhibit not being picked up at designated times.

The **$3.00 per bird or rabbit** entry fee covers the cost of the testing and prizes.

**Rabbits and poultry do not go on to Tulsa State Fair!!!**

1. **$3.00** per exhibit entry fee payable at entry time.
2. Pre-enter Poultry by calling Adam Davis (918) 381-2684 or OSU Extension Center (580) 889-7337 with number of birds being brought to fair by Thursday, Sept 5.
3. All poultry and rabbit exhibits must be made between **8:00 am and 10:00am on Friday, Sept 13** at the Atoka County Fair Barn.
4. Poultry and rabbits must be free of disease and parasites. Any sick or objectionable bird or rabbit will be removed from the show.
5. Poultry and rabbits must be owned by exhibitor.
6. Poultry will be judged according to the American Standard of Perfection.
7. Poultry and rabbits are all shown as individual exhibits.
8. All poultry and rabbits will be fed and cared for by the exhibitor, and their premises kept clean at all times.
9. All rabbits and poultry **MUST BE PUREBRED!**
10. Poultry will be classified as to breeds.
11. Game exhibitors may show male or female birds.

**Be sure all poultry and rabbits are out of the barn by 4:00 pm Friday, Sept 13.**