

Included in the 4-H Project exhibit requirements distributed in fall 2019 identified what was needed for a judge to evaluate the learning and knowledge gain associated with each 4-H exhibit opportunity. While we believe completing all of these experiences still provides the best educational experience for the 4-H member, with the transition to a virtual 4-H exhibition experience, members are only required to upload the elements listed in the Virtual 2020 Fair Entry Exhibit Requirements for a judge to review. Please continue to use this show book as a starting place but refer to the Virtual Exhibit Requirement spreadsheet for guidance on the new exhibit requirements.



2020

Mason County 4-H Show



2020



Mason County 4-H Fair

Exhibit Rules and Class Requirements

**University of Illinois Extension
Fulton-Mason-Peoria-Tazewell Counties
127 S. High St, Suite 1
Havana, IL 62644
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<http://web.extension.illinois.edu/fmpt/>**

Mason County Staff

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The U of I Extension & Outreach Dept. is the flagship outreach effort of the University, offering practical education to help people, businesses, and communities solve problems, develop skills and build a better future. Extension educators located in county offices and specialists located on the U of I campus work together to develop & deliver in-depth programming in furtherance of research done at the University of Illinois. Our Extension staff travel to conduct programs in the areas of: nutrition education, youth development, economic development, workforce preparedness, family health, financial security, and wellness, etc. throughout Illinois. Extension staff also travels to meetings, trainings and conferences to enhance their skills through professional development and collaboration with colleagues.



COLLEGE OF AGRICULTURAL, CONSUMER & ENVIRONMENTAL SCIENCES

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University of Illinois Extension provides equal opportunities in programs and employment.

If you need a reasonable accommodation to attend, call (309) 543-3308.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the US Department of Agriculture by the Director, Cooperative Extension Service, and University of Illinois.



2020 4-H Show Schedule

All will be held at the Mason County Fairgrounds



4-H General Show – Monday, July 20

Check in for all projects starts at 8 a.m. – Judging of General project areas at 9:00 a.m.

Floriculture, Vegetable Gardening, and Crops & Soils to start at 10:30 a.m.

4-H PROJECTS WILL STAY IN PLACE UNTIL 3:00 P.M.

Check in at South Exhibit Building for the following:

- Aerospace
- Animal Science Exhibits
- Bicycle
- Child Development
- Civic Engagement
- College & Career Readiness
- Communications
- Computer Science
- Consumer Education
- Electricity
- Entomology/Entomology Beekeeping
- Exploratory
- Forestry
- Geology
- Intercultural
- Interior Design
- Leadership
- Natural Resources & Outdoor Adventures
- Nature: Fishing & Wildlife
- Photography
- Robotics
- Shooting Sports

- Small Engines
- Technologies
- Unmanned Aerial Vehicles/Systems
- Theatre Arts
- Tractor
- Veterinary Science
- Video/Filmmaking
- Visual Arts
- Weather
- Welding
- Woodworking

Check in at Auditorium for the following:

- All Food & Nutrition
- Health
- STEAM Clothing
- Shopping

Check in at North Exhibit Building for the following:

- Crops & Soils
- Horticulture (Floriculture & Vegetable Gardening)

4-H Livestock Shows – July 19 - 23

Sunday, July 19

- 5:00 p.m. Earliest time of arrival for ALL livestock (except cats and dogs)
- 9:00 p.m. Fairgrounds gates close

Monday, July 20

- 12:00 p.m. **ALL LIVESTOCK MUST BE IN PLACE**
- 3:00 p.m. All 4-H General Projects Released (**all 4-H ribbons, judging sheets, and tags must be removed**)
- 3:30 p.m. Exhibitors check in Cats– Auditorium
- 4:00 p.m. Cat Show – Auditorium
- 5:30 p.m. Deadline for Horses/Ponies to be in place
- 6:30 p.m. Horse Show – Lower Arena

Tuesday, July 21

- 8:30 a.m. Weigh-in Market Class Poultry
- 9:00 a.m. Poultry Show – Rabbit/Poultry Building
- 12:30 p.m. Exhibitors check in dogs – Auditorium
- 1:00 p.m. Dog Show - Auditorium

Wednesday, July 22

- 9:00 a.m. Beef Show – Show Arena
- 9:30 a.m. Rabbit Show – Rabbit/Poultry Building
- 1:00 p.m. Sheep Show – Show Arena
- To Follow Goat Show – Show Arena

Thursday, July 23

- 8:00 a.m. Swine Show – Show Arena

GENERAL INFORMATION

GENERAL SHOW RULES

1. 4-H show dates are set in the winter and posted in the 4-H newsletter. 4-H exhibitors should check the show schedule carefully to find the date, time, and place for judging of each of their projects in which they are enrolled.
2. Exhibitors in a 4-H Show must be enrolled in 4-H in the current 4-H year and must be an active 4-H member in good standing. **"Active" means fulfilling club expectations.** Members with inactive status are not eligible to exhibit or receive 4-H premiums.
3. Entries for the 4-H Show must be made at <https://faireentry.com/> **ALL ENTRIES ARE DUE BY MIDNIGHT ON JULY 1, 2020.**
4. **All general 4-H projects MUST be made by the member during the current 4-H year, which runs September 1 – August 31, and MUST be dated as to when they were made.** All livestock must be cared for by the 4-H member.
5. Members must exhibit their project requirement at the appropriate county 4-H show to receive premium money at the end of the 4-H year. **There will only be one premium paid for each project in which the member is enrolled.** (See projects listed on page 4.) If the member wishes to show more than one item, such as multiple Visual Arts media projects or more than one type of Consumer Education exhibit, they will receive no additional premiums, but will receive a ribbon and the chance to be chosen for State Fair or Best of Show. The premium will be paid on the highest rating if more than one item is exhibited for a project.
6. If a member brings a project exhibit to the show for which he or she is not enrolled, the project will be judged but no premium will be paid.
7. **Exhibits not following requirements will be marked down one level.**
8. The following projects have a January 6, 2020 enrollment deadline. All other project enrollments and changes are due May 1. They will not be accepted after this date. Projects with a January 6 deadline are: Beef, Goat, Horse, Sheep, and Swine. A young person may join 4-H at any time of the year, but in order to show at the 4-H Shows members must adhere to the above deadlines.
9. Each 4-H entry will be judged on its own merit and not against another 4-H member's project. **Entries will be conference-judged, allowing judges the opportunity to discuss the project with the exhibitor.**
10. Members are encouraged, and sometimes required, to be present during judging. If a member is unable to be present, it is strongly encouraged that they include a written report with their exhibit. Call Joli at the Extension office prior to the show in order to obtain guidelines for the report. **Exhibitors MUST be present for judging to be considered for selection to exhibit at State Fair.**
11. Show requirements are not necessarily the same as the project requirements.
12. Showmanship awards and/or Best of Show rosettes will be awarded in all project areas.
13. State Fair selections (non-livestock categories) will be made during the 4-H judging, at the **judges'** discretion.
14. Space is limited. See specific requirements with each project. Floor exhibits are not limited **unless** indicated in a specific project section.
15. Extension Staff reserve the right to make final interpretation on any controversies, covered or not covered in the 4-H Show Book.
16. Judging Standards sometimes change from year to year, based on state requirements. Judging sheets are updated yearly. Copies of the most current judging sheets can be obtained at the Extension office.

17. For most 4-H projects, the standard scoring system is:
 - a. Blue = Very Good, Exceeds Standards
 - b. Red = Standard
 - c. White = Needs Improvement
18. If you are a person who needs a reasonable accommodation to participate in any 4-H Show or the Fair, contact University of Illinois Extension, Mason County Office, at 309-543-3308, at least two weeks prior to the event.
19. University of Illinois Extension personnel or volunteer helpers will not be held responsible for damaged or stolen projects at any of the 4-H shows.
20. All 4-H ribbons, tags, and judging sheets must be removed from projects at the project removal time on Monday at 3:00 p.m.

4-H ENTRY TAGS

1. 4-H entry tags (except vegetable gardening, Floriculture, and Crops & Soils) will be mailed directly to 4-H members. 4-H entry tags must be securely fastened to your exhibit. Some of your information may already be pre-printed onto the entry tags, but you may still need to add information.
2. Entry tags are **not** needed for the following projects: livestock projects, dog obedience, dog care, and cat care.
3. Please indicate on the entry tag your age and the years you have been in the project and unit. Names should appear on the entry tags only, not on the projects.

The staff of Mason County Extension expresses a sincere thank you to ...

- ✓ Fair Superintendents for their countless hours donated in organizing the project divisions!
- ✓ 4-H leaders and parents for their continued dedication to the 4-H program in Mason County!
- ✓ Mason County 4-H & Jr. Show Association for volunteering their time to help organize such a wonderful event for the youth in Mason County!
- ✓ Havana National Bank for recognizing the efforts of our youth through their annual Award Winners Banquet!
- ✓ 4-H youth, parents, and volunteers for helping to make the Federation Concession Stand a success!
- ✓ U of I Extension Master Gardeners for their assistance with the Jr Master Gardener program and as fair volunteers.
- ✓ Our Multi-County Unit Extension Council for volunteering their time to support the Fulton-Mason-Peoria-Tazewell Unit!
- ✓ And to our financial supporters for their continued investment in Extension programming!

4-H PREMIUMS

1. All exhibits in the Mason County 4-H Shows will be judged on the Danish Judging System. Each completed exhibit meeting the project show requirement will receive either a Blue, Red, or White award ribbon.

A = Blue = Superior (3X)

B = Red = Good (2X)

C = White = Fair (1X)

The dollar value of X will be determined after the county shows, depending on the number of exhibits and the amount of money allotted for Mason County 4-H Shows. This amount is based on the number of enrolled 4-H members, and is paid from funds received from the State of Illinois (*see disclaimer). An exhibitor can claim only *one premium per project* as listed below. (See Gen. Show Rule #5)

* "The Department of Agriculture shall use its best efforts to secure sufficient appropriations to fund premiums. In any year for which the General Assembly of the State of Illinois fails to make an appropriation sufficient to pay such premiums, premium amounts may not be accurately reflected in this Premium Book."

Aerospace	Electricity	Photography
Animal Science	Entomology	Plants & Soils
Small Pets	Beekeeping	Poultry
Guinea Pigs	Exploratory	Rabbits
Beef	Family Heritage	Robotics
Bicycles	Food & Nutrition	Sheep
Cats	4-H Cooking	Shooting Sports
Child Development	Food Science	Small Engines
Civic Engagement	Sports Nutrition	Swine
Service Learning	Food Preservation	Technologies
Clothing & Textiles	Forestry	3-D Printing & Design
STEAM Clothing	Geology	UAV/Systems (Drones)
Shopping in Style	Goats	Theatre Arts
College & Career Readiness	Health	Tractor
Communications	Horse	Veterinary Science
Creative Writing	Horticulture	Video – Filmmaking
Journalism	Floriculture	Visual Arts
Computer Science	Vegetable Gardening	Food Decorating
Consumer Education	Intercultural	Scrapbooking
Entrepreneurship	Interior Design	Weather
My Financial Future	Leadership	Welding
Crops	Natural Resources & Outdoor	Woodworking
Dairy Cattle	Adventures	
Dogs	Nature: Fishing & Wildlife	

2. 4-H premium checks will be mailed to members. The tear-off portion of the check will list projects exhibited, ratings, and premium money. If there is an error on this, the 4-H member must present his/her ribbon as proof of exhibiting to the Extension office. No additional premiums will be paid without the ribbon as proof of rating. **This rule makes it vital that you keep your ribbons!**
3. 4-H projects are shown at 4-H shows and paid premiums. 4-H activities are not shown at 4-H shows and are not paid premiums. These activities will add credit to your 4-H awards applications completed in August.

STATE FAIR POLICIES

1. A 4-H member must be 8 years old by September 1 of the current 4-H year and meet eligibility rules for participation in the Junior Show at State Fair.
2. **Only Blue-rated projects are eligible for State Fair.**
3. Exhibitors must be enrolled and participating in the current year in the project or activity exhibited.
4. All entries must be the products of the current 4-H year. The same product that is selected at the county level must be the one exhibited at the State Fair, adjusted to State Fair class requirements. The exceptions include exhibits in the areas of Food & Nutrition (must be the same recipe), Crops, Fruit Market Plates, and Vegetable Market Baskets/Plates. Modifications can be made to the original county exhibit to: 1) meet State Fair class requirements, or 2) incorporate suggested improvements made by the local judge.
5. **An individual 4-H member may enter ONLY ONE** exhibit class in the State Fair 4-H exhibit Division. **Conference Judging for Mason County general classes will take place on Sunday, August 11.** The Illinois State Fair, State 4-H Office, and local University of Illinois Extension personnel or their assigned agents do not assume liability for loss, theft, or damage to exhibits.
6. All exhibits, unless otherwise noted, will receive an Award of Excellence. Superior ratings will be awarded, based on the judges' discretion.

Most, but not all, 4-H projects are included as classes at the State Fair. Exhibits eligible for State Fair selection are noted in project sections. For more information, contact the Extension office or visit the Illinois State Fair Junior Show website at <http://agr.state.il.us/isf/premium/junior.pdf>

**State Fair Conference Judging scheduled
for Mason County 4-H Members General Projects
Friday, August 14 - MASON COUNTY GENERAL EXHIBITS**

PET EXHIBIT RULES

The rules listed earlier in General Show Rules also apply to pet classes. The rules listed below are additional rules.

1. All pets are required to have proper vaccinations and be healthy the day of show.
2. 4-H members must be able to control their pets at all times.
3. Pet exhibitors must have had ownership of their animals prior to June 1, 2020.
4. Show Superintendents along with Extension Staff have the authority to accept or reject late arrivals.

RULES FOR 4-H MEMBERS EXHIBITING AT THE 4-H LIVESTOCK SHOWS

The rules listed in General Show Rules also apply to livestock classes. The rules listed below are additional rules. **Since our 4-H Livestock Shows are held at the Mason County Fair, the rules listed each year in the Mason County Jr Show Fair Book also apply.**

1. To participate in the 4-H Livestock Show, exhibitors must be enrolled in the appropriate project.
2. **All entries are due in <https://faireentry.com/> by midnight on July 1. (See General Rule #3)**
3. Exhibitors will be assigned pens by County Fair Superintendents for their livestock. See the schedule at the front of this book for specific time requirements for having your animals in place.
4. Health papers will be checked by the superintendent before the exhibitor is allowed to unload and stall his/her animals.
5. All livestock exhibits **MUST** be the property of the exhibitor, and registered in his or her name only, no partnerships recognized. 4-H exhibitors must have registration papers for purebred animals available upon request.
6. All exhibitors are expected to exhibit their own animals. If there are two entries in the same class, the second exhibit can be shown by another 4-H exhibitor. Any exceptions to this rule must be cleared with the Superintendent and Extension staff.
7. All animals must remain in place on exhibition until dismissed by the Livestock Superintendent.
8. While the 4-H Livestock Shows are held in conjunction with the Mason County Junior Show, the 4-H judging is a separate entity, where the judge gives 4-H ratings of Blue, Red, or White, rather than Junior Show placings.
9. All livestock exhibitors are required to meet the current year's Livestock Health and Exhibition Requirements for County Fairs as found in the Junior show fair book.
10. Youth enrolled in Horses, Rabbits, Poultry, Dogs, and Cats projects must have completed the Quality Assurance & Ethics Certification (QAEC) training before July 1, 2020. Failure to complete QAEC will result in the animal science project enrollment being cancelled and member will be ineligible to exhibit at county fair. Link to the online QAEC training: <http://web.extension.illinois.edu/qaec/>
11. Youth enrolled in Dairy Cattle, Beef Cattle, Swine, Sheep, and Goats must have completed the Youth for the Quality Care of Animals (YQCA) training before July 1, 2020. Failure to complete the YQCA training will result in the animal science project enrollment being cancelled and member will be ineligible to exhibit at county fair. Link to the online YQCA training: <http://yqca.org>

ATTENTION: LIVESTOCK EXHIBITORS

Since our 4-H Livestock Shows are held in conjunction with the Junior Show at the Mason County Fair, the rules listed each year in the Mason County Junior Show fair book also apply.

It is important that you check arrival times, deadlines to be in place, ownership dates, weigh-in times, and all other specifics for livestock shows as listed in the Junior Show fair book.

Check regulations carefully to insure that you are following ALL requirements to show your livestock.

2020 Exhibition Livestock Health Requirements County Fairs

For Health Requirement Information:
 Illinois Department of Agriculture
 Bureau of Animal Health and Welfare
 State Fairgrounds P.O. Box 19281
 Springfield, IL 62794-9281
 Phone (217) 782-4944

GENERAL REQUIREMENTS

These Exhibition Health Requirements apply to all livestock present at the fair including those animals that are not entered in competitive events.

1. Exhibitors are required to familiarize themselves with all rules applicable to their exhibits.
 All out-of-state animals shall require an entry permit. Entry permit numbers are available by calling the Illinois Department of Agriculture, Monday through Friday from 8:00 AM to 4:30 PM, at 217/782-4944. Permits may also be obtained online at: <http://www.agr.state.il.us/AnimalHW/animalregistry/login.php>
2. All animals, except as noted, shall be accompanied by a Certificate of Veterinary Inspection (CVI) which shows that the animal meets all health requirements for the State of Illinois. CVI's shall be made available to Bureau of Animal Health Personnel on request.
 CVI means a legible record made on an official form from the state of origin which has been issued, signed and dated by an accredited veterinarian and which shows the name and address of the animal's owner or exhibitor and the results of all required tests or vaccinations. A CVI shall list only one animal identification per line; shall be presented on the form on which it was initially issued; and shall not be corrected, changed or altered in any manner.
3. All animals shall be officially identified. The animal(s) official identification shall be recorded on the CVI.
4. If animals are from tuberculosis accredited, brucellosis certified, pseudorabies qualified, or brucellosis validated herds, the identifying herd number(s) along with the date of the last herd test(s) shall appear on the CVI.
5. CVI for out-of-state livestock shall be void thirty (30) days after issuance.
6. CVI for Illinois-origin livestock shall be void ninety (90) days after issuance.
7. All livestock shall be subject to examination upon entry to any Illinois fair or exhibition.
 Any animal showing evidence of infectious, contagious or communicable diseases shall be immediately withdrawn and held in quarantine at the owner's risk and expense until properly treated and recovered, or until the animal is released to return to the owner's premise.
 Any livestock infected with scabies, mange, active lesions of ringworm, soremouth, or multiple warts which are easily visible without close examination shall not be permitted to exhibit and are subject to quarantine or removal from the fairgrounds.
 Sheep and goats with caseous lymphadenitis as evidenced by draining abscesses shall not be exhibited and are subject to immediate quarantine or removal from the fairgrounds.
8. Illinois Department of Agriculture personnel or designee may collect blood, tissue, milk or urine samples from any animal being exhibited and/or raced at any Illinois fair to test for the presence of illegal drugs or banned substances. New examination techniques, such as ultrasound, may also be used at anytime while the animals are on the grounds of any Illinois fair or exhibit.
 The Illinois Department of Agriculture or designee may collect urine, blood, tissue or other test samples from exhibition animals at the time of slaughter.

9. All exhibitors of animals at any Illinois fair or exhibition shall comply with the provisions of the Illinois Humane Care for Animals Act. If violations are observed, the animal(s) will be excused from exhibition and ordered removed from the grounds with all awards being forfeited.

Any practice or deviation from normal, accepted care, including physical, medical or mechanical application, shall constitute a violation of show rules and may result in the animal(s) disqualification and removal from the fairgrounds.

10. Any Illinois cattle, bison, cervidae or goats being exhibited in non-accredited free states must be isolated from the remainder of the herd/flock upon return to Illinois and retested for tuberculosis 60-120 days post-entry.

CATTLE

Identification

Individual identification of each animal shall be either a fully healed and legible tattoo, approved official ear tag, registration number (can only be used if the tattoo is recorded on the registration certificate or for breeds where pictures are acceptable), or individual brands, if brand is recorded on the registration certificate.

Illinois Cattle

Brucellosis

Illinois is a Bovine Brucellosis Class-Free State. Brucellosis testing is not required for Illinois cattle.

Tuberculosis

Illinois is an Accredited Tuberculosis- Free State. Tuberculin testing is not required for Illinois cattle.

Please note: Illinois calves under 6 months of age, and Illinois steers are not required to have a Certificate of Veterinary Inspection.

Out-of-State-Cattle

All out-of-state cattle are to be accompanied by an entry permit. Entry permit numbers are available by calling the Illinois Department of Agriculture, Monday through Friday from 8:00 AM to 4:30 PM, at 217/782-4944. Permits may also be obtained online at: <http://www.agr.state.il.us/AnimalHW/animalregistry/login.php>

Brucellosis

1. Female cattle six (6) months of age and older and bulls eighteen (18) months of age and older shall be negative to an official test for brucellosis within thirty (30) days prior to entry, unless exempt by one (1) of the following:

- A. Originate directly from a certified brucellosis-free herd.
- B. Official vaccinates of dairy breeds under twenty (20) months of age or official vaccinates of beef breeds under twenty-four (24) months of age.
- C. Animal originated from a "Class Free" state (if entire state is so classified)
- D. Steers and spayed heifers are not required to be tested for brucellosis.

2. The negative brucellosis test shall be conducted at a state or federal laboratory within 30 days prior to exhibition.

Tuberculosis

1. Accredited Tuberculosis Free States

A. No tuberculin test required. All cattle, including steers, originating from an Accredited Tuberculosis Free State, may enter Illinois for exhibition when accompanied by a CVI issued by an accredited veterinarian within 30 days.

2. Non-Accredited Tuberculosis Free Areas or States (Not TB Free)

A. Cattle must originate from a herd where a complete herd test was conducted within the past year.

B. The individual animals entering Illinois must be negative to an additional tuberculin test conducted **within 30 days prior to exhibition.**

C. Cattle that enter Illinois for exhibition and remain in Illinois (animal does not return to the state of origin within 30 days) must be isolated and retested for TB 60-120 days from the last official TB test date.

SWINE

Illinois Swine

Identification

1. Swine shall be identified by an official ear tag, tattoo or recognized breed ear notch.

2. Ear notch identification is acceptable for all barrows, crossbred gilts and breeding swine.

(Note: Ear notch identification of crossbred swine does not satisfy USDA identification requirements for interstate movement or official testing.)

Brucellosis

Brucellosis testing is not required for Illinois swine.

Pseudorabies

Pseudorabies testing is not required for Illinois swine.

Out-of-State Swine

All out-of-state swine are to be accompanied by an entry permit. Entry permit numbers are available by calling the Illinois Department of Agriculture, Monday through Friday from 8:00 AM to 4:30 PM, at 217/782-4944. Permits may also be obtained online at: <http://www.agr.state.il.us/AnimalHW/animalregistry/login.php>

Identification

1. Individually identified by an official ear tag, tattoo or recognized breed ear notch.
2. Ear notch identification **is not** acceptable for crossbred animals.

Brucellosis

1. Breeding swine 4 months of age and older shall be negative to an official test for brucellosis within 30 days prior to exhibition unless exempt by one (1) of the following:
 - A. Originate immediately and directly from a validated brucellosis-free herd.
 - B. Originate directly from a validated brucellosis-free state.
2. Swine brucellosis tests for exhibition shall be conducted at a state or federal laboratory.

Pseudorabies

- 1. Swine originating from a Pseudorabies Stage IV or V state are exempt from the pseudorabies testing requirement.**
2. Swine originating from a Pseudorabies Stage III state shall be negative to an official test for pseudorabies conducted within thirty (30) days prior to entry or originate immediately and directly from a qualified pseudorabies negative herd.
3. Swine originating from a Pseudorabies Stage I or II state shall be negative to an official test for pseudorabies conducted within the 10 days prior to entry.
4. Barrows and females in market classes must meet the same requirements as breeding swine.

SHEEP

Identification

Individual identification of each animal shall be by an ear tattoo or official metal or plastic tag. A microchip ID is acceptable if the owner provides the reader.

Ear tattoos may be used when a registration certificate, listing the tattoo number, accompanies the animal.

When using ear tags, the tag must indicate the premises ID and state of origin. The tag number must be assigned by a state or APHIS representative and recorded in the Scrapie Record Database.

Market Lambs

All market lambs must be slick shorn (show ring ready) before weigh-in so that show lamb fungus can be identified.

Illinois Sheep

1. Sheep originating from a flock that has previously been classified as either an infected or source flock can be exhibited in Illinois upon the completion of an approved flock plan.
2. For any animal born after 1/1/2002, the CVI must include the flock of birth and the flock of origin, if different.

Out-of-State Sheep

All out-of-state sheep are to be accompanied by an entry permit. Entry permit numbers are available by calling the Illinois Department of Agriculture, Monday through Friday from 8:00 AM to 4:30 PM, at 217/782-4944. Permits may also be obtained online at: <http://www.agr.state.il.us/AnimalHW/animalregistry/login.php>

1. Sheep originating from a flock that has previously been classified as either an infected or source flock can be exhibited in Illinois upon the completion of an approved flock plan.
2. For any animal born after 1/1/2002, the CVI must include the flock of birth and the flock of origin, if different.

GOATS

Identification

Individual identification of each animal shall be by an ear tattoo or official metal or plastic tag. A microchip ID is acceptable if the owner provides the reader.

Tattoos may be used when a registration certificate, listing the tattoo number, accompanies the animal.

When using ear tags, the tag must indicate the premises ID and state of origin. The tag number must be assigned by a state or APHIS representative and recorded in the Scrapie Record Database.

Ears should be used for tattooing when possible. If there is no space in the ear, the flank or tail fold may be used.

Illinois Goats

1. Goats originating from a herd that has previously been classified as either an infected or source herd can be exhibited in Illinois upon the completion of an approved herd plan.
2. For any animal born after 1/1/2002, the CVI must include the flock of birth and the flock of origin, if different.

Out-of-State Goats

All out-of-state goats are to be accompanied by an entry permit. Entry permit numbers are available by calling the Illinois Department of Agriculture, Monday through Friday from 8:00 AM to 4:30 PM, at 217/782-4944. Permits may also be obtained online at: <http://www.agr.state.il.us/AnimalHW/animalregistry/login.php>

1. Goats originating from a herd that has previously been classified as either an infected or source herd can be exhibited in Illinois upon the completion of an approved herd plan.
2. Tuberculosis- Goats from areas or states that are not Accredited Bovine Tuberculosis Free, must be accompanied by a CVI indicating that the goats originated from a herd where a complete negative herd test has been conducted within the past twelve (12) months and the individual animals are negative to a tuberculin test conducted within thirty (30) days prior to entry. For any animal born after 1/1/2002, the CVI must include the flock of birth and the flock of origin, if different.

HORSES, PONIES, MULES AND OTHER EQUIDAE

Illinois Equine

1. All horses and other equidae, twelve (12) months of age and older attending an advertised equine event, shall be accompanied by a negative test for equine infectious anemia (EIA) conducted within the last twelve (12) months. A copy of this test shall accompany the animal.
2. AGID (Coggins) or ELISA tests are accepted.
3. An advertised equine event means a show, rodeo, sale, auction, exhibition, trail ride, or horse fair that is posted or media promoted.
4. A CVI is not required for Illinois equine.

Out-of-State Equine

All out-of-state equine are to be accompanied by an entry permit. Entry permit numbers are available by calling the Illinois Department of Agriculture, Monday through Friday from 8:00 AM to 4:30 PM, at 217/782-4944. Permits may also be obtained online at: <http://www.agr.state.il.us/AnimalHW/animalregistry/login.php>

1. All horses and other equidae entering Illinois that are twelve (12) months of age or older, shall be accompanied by a negative test for equine infectious anemia (EIA) conducted within the last twelve (12) months. A copy of this test shall accompany the animal.
2. AGID (Coggins) or ELISA tests are accepted.
3. All horses and other equidae shall be accompanied by a CVI issued within thirty (30) days prior to entry.

POULTRY

1. All entries (except waterfowl, i.e. domesticated fowl that normally swim, such as ducks and geese) in a show or exhibition shall have originated from a U.S. Pullorum-Typhoid Clean or equivalent hatchery or flock OR have a negative pullorum-typhoid test within 90 days prior to exhibition. Exhibitor shall show proper information as to name and address of owner or exhibitor, name and address of the authorized testing agent, date of the testing and the number, breed, and species of those tested.
2. Prior to being used to transport poultry to a show, all crates, boxes, containers and vehicles shall be thoroughly cleaned and disinfected.
3. Any poultry vaccinations must be performed at least 4 weeks prior to delivery to the show.

4. Upon admission to a show, all entries shall be examined by the official county fair veterinarian or qualified state personnel who shall also receive and examine all certificates necessary for admission of birds to a show. Birds not in show condition will be excused from exhibition and removed from the premises. Any fowl showing signs of illness during the fair will be removed from the exhibition grounds.

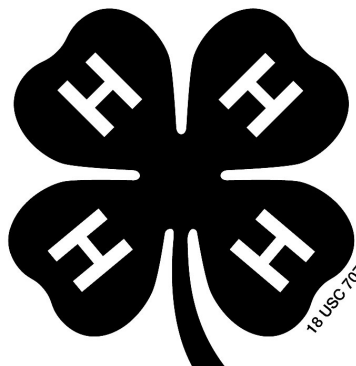
5. All out-of-state turkeys must originate from flocks that are officially classified as U.S. Mycoplasma Gallisepticum Clean in accordance with the provisions of the National Poultry Improvement Plan or be negative to a test for Mycoplasma gallisepticum within 30 days prior to entry.

6. A permit is also required for out-of-state poultry. A permit may be obtained by calling (217) 782-4944.

Please note: These poultry exhibition requirements do not apply to 4-H and FFA 1-day poultry shows where the entries are taken to the show and returned home the same day. However, a permit is required for out-of-state poultry.

RABBITS

There are no requirements governing the movements of rabbits within or into Illinois.



AEROSPACE Each county may send 2 entries total from 50130, 50131; and 1 entry from 50133.

Model Rocketry: (SF 50130)

(Open to youth in Aerospace 2, Aerospace 3, and Aerospace 4)

Exhibit one model rocket assembled or made by the member. The exhibit will be a static display. The model rocket should be in good flying condition. DO NOT include the rocket engine with your exhibit. The rockets will not be launched. Attach the printed directions for construction of the rocket if any were used.

Aerospace Display: (SF 50131)

(Open to youth in Aerospace 2, Aerospace 3, and Aerospace 4)

Prepare a display related to the aerospace project which does not fit in the model rocketry class. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Aerospace Ready4Life Challenge (SF 50133)

Open to 11- to 18-year-olds enrolled in any Aerospace project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Aerospace Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

BEEF

Includes members enrolled in Beef

Breeding Beef – *Purebred Heifer* classes will be offered for Angus, Hereford, Shorthorn, Simmental, all other Registered Breeds, and Crossbred as follows:

- Junior Heifer – calved on or after January 1, 2020
- Senior Heifer – calved between Sept. 1 – Dec. 31, 2019
- Late Summer Yearling – calved between July 1 – Aug. 31, 2019
- Early Summer Yearling – calved between May 1 – June 30, 2019
- Late Junior Yearling – calved between March 1 – April 30, 2019
- Junior/Senior Yearling – calved between Sept. 1, 2018 – Feb. 28, 2019

Commercial Heifers will be considered a separate breed and will be divided into three classes according to weight at time of show.

Steers – Steers will be divided by breed. They will be placed into the proper class after being weighed.

4-H Showmanship Awards – 4-H livestock exhibitors in Beef will be eligible for 4-H Showmanship awards. Showmanship classes will be divided into Junior (8-12 years old) and Senior (13 years & over).

Beef Animal Science (SF 50135)

Prepare a display focusing on any activity related to the beef project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Beef Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Beef project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Beef Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

BICYCLE (not eligible for state fair)

Bicycle 1

Exhibitors will draw three situations from a bag that relate to activities from Level 1 and discuss/explain all three with the judge. Situations may include: Selecting bicycle safety equipment; Demonstrate how to fit a helmet; Identify bike parts and their function; Selecting the right size bike; How to check bicycle tires, brakes and chains; Recognizing traffic signs and their meaning; General discussion of bicycling hazards; and Items to consider when planning a bike trip.

Bicycle 2

Exhibitors will draw three situations from a bag that relate to activities from Level 2 and discuss/explain all three with the judge. Situations may include: Factors to consider when choosing a bike; Comparing tire pressure, valve type and tread; Steps in fixing a flat tire; Steps to follow when cleaning, lubricating and replacing a bike chain; Evaluating the braking system

on a bicycle; Factors to consider when mapping out a bike route; Rules for smart bike riding; and Planning a menu for an all-day bike ride.

Bicycle Ready4Life Challenge (not eligible for state fair)

Open to 11- to 18-year-olds enrolled in any Bicycle project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Bicycle Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

CAT

Includes members enrolled in Cats

Classes will be offered for each age group as follows:

- | | |
|--------------------|-----------------------|
| - Cats, short hair | - Kittens, short hair |
| - Cats, long hair | - Kittens, long hair |

Exhibit one mature cat, 8 months of age or older or one kitten 4-8 months of age. Kittens must be weaned. Exhibitor should be present to answer questions about the cat and its care. All cats in the cat show must be owned by the exhibitor or the exhibitor's immediate family on or before June 1, 2020.

Proof of vaccination from your veterinarian must accompany the animal for review by the judge. Do not bring an unhealthy cat that could pass disease on to another.

Cats may be carried by the exhibitor, but should have a harness or leash. Also refer to the Pet Exhibit Rules listed in this Show Book.

Cat Animal Science (SF 50135)

Prepare a display focusing on any activity related to the cat project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Cat Ready4Life Challenge (SF 50137)**Open to 11- to 18-year-olds enrolled in any Cat project.**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Cat Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

CHILD DEVELOPMENT

CHILD DEVELOPMENT

Each county may submit 1 entry from 50141

Child Development (SF 50141)

Exhibit one of the following class options

- **Child Development 1: Infants and Toddlers**
Prepare a display focusing on any activity related to the child development project. Demonstrate the skills and knowledge you have gained through the child development project you studied. Include a list of resources you used to learn more about child development, such as mentors, books, articles, or websites. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.
- **Child Care 1: Infants and Toddlers**
Prepare a display focusing on a topic related to child care of this age group such as selecting age appropriate activities, explaining child behavior, and/or recognizing safety concerns. Demonstrate the skills and knowledge you have gained through the child development project you studied. Include a list of resources you used to learn more about child care, such as mentors, books, articles, or websites. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display

during the entire exhibit period. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Child Development Ready4Life Challenge (SF 50142)

Open to 11- to 18-year-olds enrolled in the Child Development project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Child Development Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

CIVIC ENGAGEMENT

Each county may submit 2 entries total from classes 50145, 50146, 50147; and 1 entry from 50149. **Due to space restrictions, exhibits are limited to 2' 6" wide and 15" deep.**

Civic Engagement 1 (SF 50145)

Exhibit a display illustrating one of the following options: 1) personal information about yourself – who you are, things you like to do, things you are good at, your favorites; 2) your feelings and how you handle these feelings; 3) your family, their responsibilities, how you work together; **OR** 4) the Family Pedigree that may include family group pages. **Due to space restrictions, exhibits are limited to 2' 6" wide and 15" deep.**

Civic Engagement 2 (SF 50146)

Exhibit a display illustrating one of the following options: 1) your neighborhood; 2) how you were a good neighbor or led a service project for your community; **OR** 3) a Citizenship Challenge that you helped organize and lead (see the project book for details). **Due to space restrictions, exhibits are limited to 2' 6" wide and 15" deep.**

Civic Engagement 3 (SF 50147)

Exhibit a display illustrating one of the activities that you completed within your project as it relates to one of the following categories in the manual: 1) Government; 2) Business and Industry; 3) Transportation, Communication & Utilities; 4) Culture & Heritage; 5) Natural Resources & Environment; 6) Education; 7) Organizations within your community; 8) Tourism; **OR** 9) Support Systems within your community. **Due to space restrictions, exhibits are limited to 2' 6" wide and 15" deep.**

Civic Engagement Ready4Life Challenge (SF 50149)

Open to 11- to 18-year-olds enrolled in any Citizenship project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for

achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Civic Engagement Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogramed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

Service Learning 1 (not eligible for state fair)

Exhibit a binder portfolio to reflect what the exhibitor accomplished in the four steps of service learning. If exhibitor has been enrolled in project for multiple years, the binder portfolio should include previous years' work. Use of page protectors is recommended.

Service Learning 2 (not eligible for state fair)

Exhibit a binder portfolio to reflect what the exhibitor accomplished in the four steps of service learning. If the exhibitor has been enrolled in the project for multiple years (including Service Learning 1), the binder portfolio should include the previous years' work. Use of page protectors is recommended.

Service Learning 3 (not eligible for state fair)

Exhibit a binder portfolio to reflect what the exhibitor accomplished in the four steps of service learning. If the exhibitor has been enrolled in the project for multiple years (including Service Learning 1 & 2), the binder portfolio should include the previous years' work. Use of page protectors is recommended.

CLOTHING & TEXTILES

Each county may submit 3 STEAM entries total from 50151 a-c, 50152 a-c, 50153 a-c; 2 shopping entries from 50154, 50155, 50156; and 1 Ready4Life entry from 50157.

All exhibits entered in the clothing and textiles area will be judged based on their construction and fit (if applicable). Exhibitors bringing garments should not wear their garments when they arrive for judging. The garment will be reviewed by the judges for construction first. Exhibitors will be asked to change into the garment as the second step of the judging process. If the garment was constructed for another individual, that individual must be present to wear the garment for the judge. (Only the exhibitor who made the garment is eligible for ribbon and premium.) Construction and appearance will both be considered during judging. If a pattern was used to make the item, the pattern instructions, either written or electronic, are to be included with the exhibit. Exhibit tags should be attached to the garment, not to the hanger.

Members wishing to exhibit knitted items should enroll in Visual Arts Fiber (if original) or Heritage Arts (if made from a pattern). Members who enroll in Clothing & Textiles with the intent of pursuing quilting can exhibit in the non-clothing exhibit category in STEAM Clothing 1—FUNDamentals. Quilts exhibited in the Clothing & Textiles area will be judged using a rubric that evaluates the sewing skills and construction of the item. All work on the quilt **MUST** be completed by the 4-H member. You cannot exhibit a quilt that was quilted by someone else. Quilts can be hand **OR** machine quilted as long as **ALL** work is completed by the exhibitor.

CLOTHING: STEAM

STEAM Clothing 1 – FUNdamentals (SF 50151a, 50151b, 50151c)

Exhibit one of the following in either the Non-Sewn, Sewn Non-Clothing, or Sewn Clothing exhibit divisions:

Non-Sewn Exhibits (SF 50151a) Exhibit one of the following:

- Clothing Portfolio – Complete at least three different samples/activities from Chapter 2 and/or Chapter 3 of the project manual. Examples of samples you might include: How Two Magically Become One, pages 85-86; No Fear of Fray, pages 93-95; Two Sides of the Moon, pages 97-99; On the Flip Side, pages 101-104; Basic Hand Sewing Skills, pages 106-108. The Portfolio should be placed in an 8 ½ x 11, 3 ring binder. Include an appropriate cover, dividers, and table of contents. NOTE – additional pages can be added each year but must be dated with the year. See pages 9-10 of project manual for portfolio formatting.
- Fabric Textile Scrapbook – Must include at least 5 different textile samples. Use Textile Information Cards template on page 41 in project manual to identify fabric swatches. Completed textile cards should be placed in an 8 ½ x 11, 3-ring binder. Include an appropriate cover. See project manual, pages 42-74, for fabric options and fabric science experiments.
- What's the Difference - What's the Price Point – Exhibit may include a notebook, poster, small display sharing a project comparison and price point. See activity, pages 118-120. Exhibit should include PHOTOS; NO actual PILLOWS.

Beginning Sewing Exhibits – exhibits in this class must be made from medium weight woven fabrics that will sew and press smoothly, flannel/fleece is acceptable. Solid color fabrics or those having an overall print are acceptable. NO PLAIDS, STRIPES, NAPPED or JERSEY KNIT. Patterns should be simple WITHOUT DARTS, SET-IN SLEEVES, and COLLARS. Raglan and loose flowing sleeves are acceptable.

Sewn Non-Clothing Exhibits (SF 50151b) Exhibit one of the following:

- Pillowcase
- Simple Pillow – no larger than 18" x 18"
- Bag/Purse – no zippers or button holes
- Other non-clothing item using skills learned in project manual

Sewn Clothing Exhibits (SF 50151c) Exhibit one of the following:

- Simple top
- Simple pants, shorts, or skirt – no zipper or button holes
- Simple Dress – no zipper or button holes
- Other – other wearable item using skills learned in project manual (apron, vest, etc.)

STEAM Clothing 2 – Simply Sewing: (SF 50152a, 50152b, 50152c)

Exhibit one of the following in either the Non-Sewn, Sewn Non-Clothing, or Sewn Clothing exhibit divisions:

Non-Sewn Exhibits (SF 50152a) Exhibit one of the following:

- Clothing Portfolio – Complete at least four different samples/activities from Chapters 2, 3 AND/OR 4 of the project manual. The Portfolio should be placed in an 8 ½ x 11, 3 ring binder. Include an appropriate cover, dividers, and table of contents. NOTE – this can be a continuation of a Portfolio created in STEAM Clothing 1. Additional pages can be added each year but must be dated with the year created. See project manual, pages 9-11 for portfolio formatting.
- Expanded Textile Science Scrapbook – Must include at least 10 different textile samples. Use Textile Information Cards template on page 39 in project manual to identify fabric swatches. Completed textile cards should be placed in an 8 ½ x 11, 3 ring binder. Include an appropriate cover. See Project, pages 40-82 for fabric science experiments.
- Design Basics – Understanding Design Principles – Exhibit should include a learning experience that demonstrates the design principles and elements involved when selecting fabric for clothing and accessories. See project manual, pages 17-20 for design suggestions.
- Entrepreneurial Sewing – Exhibit should highlight items you made for sale online. Create an exhibit that displays products you made and posted online. Refer to the project manual, pages 161-167 for information on how to analyze the cost of similar purchased items to determine pricing of your products. The exhibit may be a notebook, poster or small display.

Sewn Non-Clothing Exhibits (SF 50152b) Exhibit one of the following:

- Recycled Clothing Accessory – Create a clothing accessory made from a used item. The item must be changed in some way in the redesign process. The finished accessory must reflect at least one skill learned in the project and exhibitor should be able to identify the skill used. A before picture and a description of the redesign process must accompany the exhibit. Clothing accessory may include: hat, bag, scarf, belt, etc.
- Non-clothing item OR Clothing Accessory – Create a clothing accessory using at least one skill learned in this project. Exhibitor should be able to identify the skill used.

Sewn Clothing Exhibits (SF 50152c) Exhibit one of the following:

- Recycled Clothing – Create a garment from used textile based items. The original used item must be redesigned (not just embellished or decorated) in some way to create a new wearable piece of clothing. The finished garment must reflect at least one skill learned in this project and exhibitor should be able to identify the skill used. A before picture and a description of the redesign process must accompany the exhibit.
- Constructed garment – Any garment with facings or curves. Should use at least one skill learned in this project and exhibitor should be able to identify the skills used. Garment should be appropriate for the age and experience of the member.

STEAM Clothing 3 – A Stitch Further: (SF 50153a, 50153b, 50153c)

Exhibit one of the following in either the Non-Sewn, Sewn Non-Clothing, or Sewn Clothing exhibit divisions:

Non-sewn Exhibits (SF 50153a) Exhibit one of the following:

- Clothing Portfolio – Complete at least four different samples/activities from Chapters 2, 3 AND/OR 4 of the project manual. The Portfolio should be placed in an 8 ½ x 11, 3 ring binder. Include an appropriate cover, dividers, and table of contents. NOTE – this can be a continuation of a Portfolio created in STEAM Clothing 1 and/or STEM Clothing 2. Additional pages can be added each year but must be dated with the year created. See project manual, pages 11-13 for portfolio formatting.
- Expanded Textile Science Scrapbook - Must include at least 10 different textile samples. Use Textile Information Cards template on page 29 in project manual to identify fabric swatches. Completed textile cards should be placed in an 8 ½ x 11, 3 ring binder. Include an appropriate cover. See Project, pages 39-52 for fabric science experiments.
- Advanced Entrepreneurial Sewing – Using knowledge gained in project manual, Chapter 5, display one sample product with a business plan that includes a business ID and logo. The Exhibit may be a notebook, poster or small display.

Sewn Non-Clothing Exhibit (SF 50153b) Exhibit one of the following:

- Recycled Clothing Accessory – Create a clothing accessory made from a used item. The item must be changed in some way in the redesign process. The finished accessory must reflect at least one skill learned in the project and exhibitor should be able to identify the skill used. A before picture and a description of the redesign process must accompany the exhibit.
- Non-clothing item OR Clothing Accessory – Create a clothing accessory using at least one skill learned in this project. Exhibitor should be able to identify the skill used.

Sewn Clothing Exhibit (SF 50153c) Exhibit one of the following:

- Recycled Clothing – Create a garment from used textile based items. The original used item must be redesigned (not just embellished or decorated) in some way to create a new wearable piece of clothing. The finished garment must reflect at least one skill learned in this project and exhibitor should be able to identify the skill used. A before picture and a description of the redesign process must accompany the exhibit.
- Constructed garment – Any garment constructed by the member which is appropriate for the age and experience of the exhibitor. Should use at least one skill learned in this project and exhibitor should be able to identify the skills used. Possible examples are wool garment, dress or jacket with set in sleeves and zipper or buttons and button holes, suites evening gown or sport outfit.

CLOTHING: SHOPPING Exhibit one of the following options that align with the Shopping in Style level. If a garment is part of the 4-H exhibit, exhibitors should put the garment on PRIOR to their judging time.

Shopping in Style: Members are encouraged to spend more than one year involved in this project so they have time to learn what clothing styles look best on them while they also gain skills in building a versatile wardrobe and staying within their budget. Each year enrolled in Shopping should build on previous year's learning experience.

Shopping in Style (SF 50154)

Beginning – Choose one of the following activities from Unit 1 or Unit 2 of the project book

- Exhibit should consist of a garment that reflects your personal style along with a poster or report that 1) explains how this garment reflects your style and how it influences what others think of you; **OR** 2) how your personal style either aligns or contradicts what is considered to be “in style” today. **OR**
- Exhibit should include a garment you purchased along with a poster or report that explains or illustrates how this garment is either 1) a modern version of a fad or fashion from an earlier decade; **OR** 2) how this garment reflects a different ethnic or cultural influence. Exhibit should include garment you purchased along with a poster or report that provides 1) a body shape discussion and how body shape influences clothing selections; **OR** 2) a color discussion that provides an overview of how different colors complement different hair colors and skin tones and how that influenced garment selection. Poster or report may include pictures from magazines, the internet or actual photos of garments. **OR**
- Exhibit should include garment you purchased along with a poster or report that 1) explains how this garment uses the principles of design lines to create an illusion to alter appearance; **OR** 2) explains how color and texture of fabrics can complement or enhance appearance. Poster or report may include pictures from magazines, the internet, or actual photos of garments.

Intermediate – Choose one of the following activities from Unit 3 or Unit 4 of the project book (SF 50155)

- Exhibit should include two clothing items that were previously a part of your wardrobe that still fit but you don’t wear anymore and pair them with something new to make them wearable again. Also include a report that explains why the garment was not being worn and what you did to transform it into a wearable garment again. **OR**
- Exhibit should include at least five pieces of clothing that exhibitor can mix and match to create multiple outfits. Include a poster or report that includes a clothing inventory **AND** describes what you have learned by completing this activity. **OR**
- Exhibit should include garment you purchased along with a poster or report that 1) includes a wardrobe inventory which indicates why you selected the garment you did, clothing budget, and cost of garment; **OR** 2) explains how advertising influences clothing purchases making a distinction between wants and needs; and how the purchase of this garment compliments and/or extends your wardrobe. **OR**
- Exhibit should include garment you purchased along with a poster or report that 1) describes a cost comparison of this item completed by the exhibitor when purchasing the garment; should include variety of shopping options and/or price tracking at stores over a period of time; **OR** 2) provides a quality comparison rating the specific clothing item purchased based on care, construction, cost and unique features; should include construction quality details, design features that influenced selection, cost per wearing, and garment care.

Advanced – Choose one of the following activities from Unit 5 or Unit 6 of the project book (SF 50156)

- Exhibit should include garment you purchased along with a poster or report that summarizes care requirements not only for this garment but also for garments made of other natural and synthetic fibers; exhibit should also include a care cost analysis for garments of different fibers. **OR**
- Exhibit should include garment you purchased which you have repaired or altered along with a poster or report that provides a clothing inventory list which includes cost savings for repaired items as compared to purchasing replacement garments.
- Exhibit should include multiple garments you purchased along with a poster or report that provides plans and commentary for a fashion show that that would capture the attention of an audience. Fashion show plans should identify target audience, include show venue, purpose of the show, and logistical plan for the fashion show. This should also include a financial plan. Exhibitor should be prepared to demonstrate modeling skills.

Sewing & Textiles Ready4Life Challenge (SF 50157)

Open to 11- to 18-year-olds enrolled in any Sewing & Textiles project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Clothing Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

COLLEGE & CAREER READINESS

Each county may submit 1 entry from 50365; and 1 entry from 50366.

Build Your Future (SF 50365)

Develop a Career portfolio which includes the items listed below. Members are encouraged to spend more than one year involved in this project so they have time to thoroughly explore the learning modules and develop a greater understanding of planning and preparing for their future and develop a comprehensive career planning portfolio. The original OR photocopies of the completed activities from the project manual should be included in the portfolio. Each year enrolled in the project should build on previous year's learning experiences.

- **First Year** – Complete a minimum of Activities 1-4 from the Build Your Future project manual which includes: Skills...Choices...Careers; Making Career Connections; Build Your Future Through Portfolios; and Education Pay\$.
- **Second Year** – Complete a minimum of Activities 5-7 from the Build Your Future project manual which includes: Career FUNds; Turn Your 4-H Passion Into Profit; and Pounding the Pavement.
- **Third Year** – Complete a minimum of Activities 8-9 from the Build Your Future project manual which includes: Putting the Pieces Together: Goals for the Future; and Pathways to Success.

College & Career Ready4Life Challenge (SF 50366)

Open to 11- to 18-year-olds enrolled in the College & Career project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

College & Career Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)

- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

COMMUNICATIONS

Each county may submit 2 entries total from 50367, 50368, 50369; and 1 entry from 50370.

Communications 1 (SF 50368)

For 1st year enrolled in project: Exhibit a binder portfolio showcasing at least three activities from the project manual. Show basic activities and anything that extended lessons. For 2nd and 3rd years in project: Include everything from earlier years' work and add section showcasing at least four additional activities per year.

Communications 2 (SF 50368)

For 1st year enrolled in project: Exhibit a binder portfolio showcasing at least three activities from the project manual. Show basic activities and anything that extended lessons. For 2nd and 3rd years in project: Include everything from earlier years' work and add section showcasing at least four additional activities per year.

Communications 3 (SF 50368)

For 1st year enrolled in project: Exhibit a binder portfolio showcasing at least three activities from the project manual. Show basic activities and anything that extended lessons. For 2nd and 3rd years in project: Include everything from earlier years' work and add section showcasing at least four additional activities per year.

Creative Writing (SF 50367)

To provide the best learning experience, it is suggested that counties receive submissions in this class prior to the exhibition date to allow a judge adequate time to read the submissions and provide meaningful review. Each member may submit only one entry per class. Each entry is to be typewritten on 8 ½ x 11 paper and include exhibitor's name. Entries must be original and **written for the 4-H project**. Stories should be double-spaced. Poems may be single-spaced.

- **Rhymed Poetry** – An interpretation of a subject in rhymed verse. Submit a collection of three poems.
- **Free Style Poetry**– An interpretation of a subject in unrhymed verse. Submit a collection of three poems.
- **Short Story**– A fiction piece comprised of three basic elements: a theme, a plot and characters. Submit one story, maximum length –2,000 words.
- **Essay**– A short nonfiction composition in which a theme is developed or an idea is expressed. Submit one essay, maximum length –500 words.
- **Feature Story** -- Nonfiction human-interest story judged on interest to readers, writing style, readability, and thoroughness of coverage. Submit one story, maximum length –1,000 words.

Journalism (SF 50369)

Exhibit a binder portfolio showing the results of the appropriate year's activities noted below:

- **Year 1:** Accomplishments of a minimum of 5, 2-star activities from Part 1, answering all of the questions in the activities.
- **Year 2:** Results of doing a minimum of 5, 2-star activities in Part 2, answering all the questions in the activities.
- **Year 3:** Results of doing a minimum of 5, 3-star activities from Parts 1 and 2. One of the activities must include writing an advance story, a follow-up story, or a feature story.
- **Year 4:** Results of doing at least 2, 2-star activities and 3, 3-star activities from Part 3. If the activities include making an audio or videotape, State Fair will provide a way for the judge to view or listen to it.

Communications Ready4Life Challenge (SF 50370)

Open to 11- to 18-year-olds enrolled in any Communications project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a

model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Communications Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

COMPUTER SCIENCE

Each county may submit 3 entries total from 50159, 50160, 50161, 50162; and 1 entry from 50164.

Exhibitors may bring computer equipment for demonstration purposes. Computers will not be furnished. Internet connections are not available for use by exhibitors. Any member found to be using computer software in a manner that infringes on copyright laws will be disqualified.

Beginning Visual Programming (not eligible for state fair)

Open to youth in Computer Science Visual Based Programming

Exhibit a simple program using Scratch (or other simple graphic programming language). The program should include 8 different commands including looping and getting input from the keyboard and mouse. All exhibits must include something visual, such as a poster or printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Intermediate Visual Programming (SF 50159)

Open to youth in Computer Science Visual Based Programming

Exhibit a program using Scratch (or other simple graphic programming) that you have downloaded from the internet and modified. Compare the two programs and demonstrate the changes you made to the original program; **OR** create an animated storybook using Scratch (or other simple graphical programming language). All exhibits must include something visual, such as a poster or printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Advance Visual Programming (SF 50160)

Open to youth in Computer Science Visual Based Programming

Exhibit a video game you have created in Scratch (or other simple graphic programming). All exhibits must include something visual, such as a poster or printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Website Design: (SF 50161)**Open to youth in Computer Science Visual or Text Based Programming**

Exhibit an original website that you have designed. Internet access will not be provided, so exhibitors must supply their own internet hot spot or the website must be hosted on the exhibitor's computer). All exhibits must include something visual, such as a poster or printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Computer Open Source / Innovation CS (SF 50162)**Open to youth enrolled in Computer Science Text-Based Programming or robotics project).**

Demonstrate the skills and knowledge you have gained through the Computer project. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. Exhibits in this class may also demonstrate successful application of open source (publicly available) computing software and/or hardware, such as Raspberry Pi and Linux, to accomplish a task. All exhibits must include something visual, such as a poster or printed copy of a digital presentation or programming flowchart, which will remain on display during the exhibition. Exhibits in this area will be judged on the computer science programming. Youth enrolled in a robotics project should choose this class if you want the exhibit to be judged on the programming of the robot. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Computer Science Ready4Life Challenge (SF 50164)**Open to 11- to 18-year-olds enrolled in any Computer project**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Computer Science Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

CONSUMER EDUCATION

Each county may submit 2 entries total from 50168, 50169; and 1 entry from 50167.

Entrepreneurship: Be the E! (not eligible for state fair)

Exhibit a binder portfolio or display that includes the results of at least two completed activities from each year exhibitor has been enrolled in the project. Completed activities from previous years should be included.

My Financial Future 1 Beginner (SF 50168)

Develop a Financial Planning portfolio which includes the items listed below. This project can be completed all in one year; or a member may take several years to explore each of the activities and develop a more detailed financial plan. The original OR photocopies of the completed activities from the project manual should be included in the portfolio. Each year enrolled in the project should build on previous year experiences.

- **First Year** – Complete a minimum of Activities 1-6 from the My Financial Future – Beginner project manual which includes: Who Needs This?; Let's get SMART; Bringing Home the Bacon; Managing Your Money Flow; My Money Personality; and Money Decisions.
- **Second Year and Beyond** – Complete a minimum of Activities 7-11 from the My Financial Future – Beginner project manual which includes: Banking your \$\$\$\$; Charging it Up; Check it Out; Better than a Piggy Bank!; and My Work; My Future.

My Financial Future 2 Advanced (SF 50169)

Building on your previous work in My Financial Future – Beginner project, continue adding to your Financial Planning portfolio which includes the items listed below. Members are encouraged to spend more than one year involved in this project so they have time to thoroughly explore the learning modules and develop a greater understanding of financial literacy, planning for their future, and develop a comprehensive career and financial planning portfolio. The original OR photocopies of the completed activities from the project manual should be included in the portfolio. Each year enrolled in the project should build on previous year's learning experiences.

- **First Year** – Complete a minimum of two activities from Module 1: Earning Income and Career Planning and Module 2: Organizing Your Flow.
- **Second Year** – Complete all activities not previously completed in Module 1: Earning Income and Career Planning and Module 2: Organizing Your Flow; **AND** a minimum of two the activities from Module 3: Working with Banks and Credit Unions: Bank on It and Module 4: Making Your \$ Work 4 U.
- **Third Year and beyond** – Complete all activities not previously completed in Module 3: Working with Banks and Credit Unions: Bank on It and Module 4: Making Your \$ Work 4 U; **AND** a minimum of two activities from Module 5: Credit and Consumer Breadcrumbs.

Consumer Ed Ready4Life Challenge (SF 50167)

Open to 11- to 18-year-olds enrolled in any Consumer Education project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Consumer Ed Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source

Software and/or Hardware in the build.

CROPS

Each county may submit 3 entries total from 50170, 50171, 50172, 50173; and 1 entry from 50175.

Soybeans (SF 50170)

Exhibit five fresh plants (include root system that is washed) that are representative of member's 4-H project field; **OR** exhibit an experimental or educational project related to one experience from your project. Include explanation of the project in a report for public understanding. Include the member's crop records with the exhibit, such as the 4-H Crop record found online @ 4-H.illinois.edu, an FFA crops record, or similar information.

Corn (SF 50171)

Exhibit two fresh plants of field corn (include root system that is washed), that is representative of member's 4-H project field; **OR** exhibit an experimental or educational project related to one experience from your project. Include explanation of the project in a report for public understanding. *Sweet corn should be exhibited in Vegetable Gardening unless being raised under commercial contract by the exhibitor.* Include the member's crop records with the exhibit, such as the 4-H Crop record found online @ 4-H.illinois.edu, an FFA crops record, or similar information.

Small Grains (SF 50172)

Exhibit one gallon of the current year's crop of oats, wheat, rye, or barley that is representative of the member's 4-H project field; **OR** exhibit an experimental or educational project related to one experience from your project. Include explanation of the project in a report for public understanding. Include the member's crop records with the exhibit, such as the 4-H Crop record found online @ 4-H.illinois.edu, an FFA crops record, or similar information.

Crops Innovation Class (SF 50173)

Open to youth enrolled in any Crops project

Demonstrate the skills and knowledge you have gained through the Crops project. This could be related to, but not limited to crop production, crop utilization or topics of interest to the member related to agronomy. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Crops Ready4Life Challenge (SF 50175)

Open to 11- to 18-year-olds enrolled in any Crops project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Crops Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.

- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

DAIRY CATTLE

For youth enrolled in Dairy Cattle

Dairy Cattle Animal Science (SF 50135)

Prepare a display focusing on any activity related to the dairy cattle project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Dairy Cattle Ready4Life Challenge (SF 50137)

(Open to 11- to 18-year-olds enrolled in any Dairy Cattle project)

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Dairy Cattle Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogramed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

DOG

For youth enrolled in Dogs

For these projects, the member may exhibit both Dog Care and Dog Obedience, or may choose to exhibit just one. The Animal Science exhibit option is also available for this project. Proof of vaccination from your veterinarian must accompany the animal for review by the judge. Do not bring an unhealthy dog that could pass disease on to another.

Dog Care – exhibitors may show one per class. Classes will be offered as follows:

- Purebred Dogs
- All Others

Exhibit one mature dog or one puppy at least 10 weeks of age. Exhibitor must be present to answer questions about the dog and its care. 4-H members must have owned this dog or puppy at least 10 weeks prior to the Dog Show. Do not bring posters, displays, etc. to this judging.

Dog Obedience – exhibit one trained dog. Be prepared to go through the exercises requested by the judge. These exercises are listed throughout your project manual, and judging sheets are available at the Extension office.

Dog Obedience Rules:

- A. Exhibitors shall be limited to one entry/dog in each obedience class. The same dog cannot be entered in two different obedience classes, but the same dog can qualify for a Showmanship class.
- B. A dog cannot be shown in a class more than one year except in graduate novice, pre-open, open, graduate open, pre utility and utility. Exhibitors may show for two years in graduate novice providing the dog does not have a CDX or qualified for a leg on a CDX. Open and utility exhibitors can show for three (3) years in these classes.
- C. Beginner Novice I is for new handlers and inexperienced dogs only.
- D. Beginner Novice II is for experienced handlers with inexperienced dogs or experienced dogs with inexperienced handlers.
- E. **A dog being shown in the dog obedience project must be trained by and belong to the exhibitor or to a member of his immediate family or leased for the length of the project with a signed agreement by June 1, 2019.**
- F. All dogs must be leashed or crated (dog crates are acceptable) while on the fairgrounds - Acceptable leashes - 6 ft. leather, nylon or canvas. No prong or electronic collars will be allowed on the Fairgrounds. Collars with identification tags are not show collars and should not be used in the show rings.
- G. Dogs do not have to be AKC registered to show in the obedience show. AKC rules will be used as a guideline for judging. If a dog has 3 qualifying scores for a degree prior to 6 months of the State Fair 4-H Dog Obedience Show, it must be shown in the next highest class. Open and Utility dog exhibitors should examine Rule #6 for exceptions.
- H. Female dogs in season can participate in the Show but must be judged last.
- I. A run-off will be held in case of a tie for total score.
 - a. heeling on lead exercises will be used.
 - b. All other classes, novice off lead exercises will be used.
- J. No judge's sheets will be given to exhibitors. Score sheets will be viewed at judge's discretion.
- K. Dogs must be under the exhibitor's supervision at all times.
- L. Special problems not covered by these rules will be acted upon by the superintendent and Extension staff.
- M. Signals given by handler will be either voice or hand. Only 1 type of signal is used for each type of exercise.

Exercises for all classes may be done in any order, depending upon scheduling and the judge's preference

Dog Obedience

- Beginner Novice I Class (For inexperienced handlers and inexperienced dogs)
- Beginner Novice II Class (For experienced handlers and inexperienced dogs OR experienced dogs and inexperienced handlers)
- Preferred Novice Class
- Novice Class
- Graduate Novice Class
- Preferred Open Class
- Open Class
- Graduate Open Class
- Preferred Utility Class
- Utility Class

Dog Showmanship

- Junior Showmanship (for handlers age 8 to 13 (as of 9/1/19))
- Senior Showmanship (for handlers age 14 and older (as of 9/1/19))

Rally Obedience

- Rally Novice Class
- Rally Intermediate Class
- Rally Advanced Class

- Rally Excellent Class

Dog Animal Science (SF 50135)

Prepare a display focusing on any activity related to the dog project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Dog Ready4Life Challenge: (SF 50137)

Open to 11- to 18-year-olds enrolled in any Dog project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Dog Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

ELECTRICITY

Each county may submit 3 entries total from 50177, 50178, 50179; and 1 entry from 50181.

Electricity 1 (SF 50177)

(May only be battery-powered projects using battery components and wiring). Exhibit a momentary switch, simple switch, basic circuit, electromagnet, galvanometer, **OR** an electric motor. All projects must include a report explaining how the project was constructed and the principles demonstrated. Recommendations can be found on the website. Projects using paper clips, cardboard, thumbtacks, & brads are not eligible for state fair exhibits in electricity. Members wishing to exhibit these types of projects should consider exhibiting in Junkdrawer Robotics 1 or 2.

Electricity 2 (SF 50178)

(May only be battery-powered projects using battery components and wiring) Exhibit a circuit board demonstrating parallel and series switches, including a circuit diagram; 3-way or 4-way switch circuit using DC/battery; **OR** a basic electrical device (examples: rocket launcher, burglar alarm, etc). All projects must include a report explaining how the project was constructed and the principles demonstrated. Recommendations can be found on the website. Projects using paper clips, cardboard, thumbtacks, & brads are not eligible for state fair exhibits in electricity. Members wishing to exhibit these types

of projects should consider exhibiting in Junkdrawer Robotics 1 or 2.

Electricity 3 (SF 50179)

Exhibit a 120V lighting fixture or other appliance which uses a switch; **OR** two electrical household circuits using 120V materials to comply with National Electrical Code, one with a simple on/off switch to control bulb, and one using 3-way switches to control light from two locations; **OR** other project which demonstrates principles in the *Wired for Power* book. All electricity projects must include a report, explaining how the project was constructed, and principles for its operation. Recommendations can be found on the website.

Electricity 4 (not eligible for state fair)

Exhibit any electronic or solid state appliance. Exhibitor must be able to explain how the project was constructed, how it is to be used and how it works. When project is being constructed, general safety and workmanship should be considered.

Electricity Ready4Life Challenge: (SF 50181)

Open to 11- to 18-year-olds enrolled in any Electricity project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Electricity Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

ENTOMOLOGY GENERAL

Each county may submit 2 entries total from 50183, 50184, 50185, 50186; 1 entry from Class 50187.

Size and number of exhibit cases should relate appropriately to the number of insects being displayed for a specified class. Cases should be no deeper than 4". Exhibitors should note that Entomology exhibits may be placed UPRIGHT for display.

Entomology 1 (SF 50183)

Exhibit 15 or more species representing four or more orders. Collection must be accurately labeled. Exhibitors must also include the Entomology 1 project manual, *Teaming With Insects 1*, with at least one completed activity for each year enrolled. The project manual must be included. Rules for pinning and labeling insects are available from your local Extension office.

Entomology 2 (SF 50184)

Exhibit 30 or more species representing eight or more orders. Collection must be accurately labeled. Exhibitors must also include the Entomology 2 project manual, *Teaming With Insects 2*, with at least one completed activity for each year enrolled. The project manual must be included. Rules for pinning and labeling insects are available from your local

Extension office.

Entomology 3 (SF 50185)

Exhibit 60 or more species representing twelve or more orders. Collection must be accurately labeled. Exhibitors must also include the Entomology 3 project manual, *Teaming With Insects 3*, with at least one completed activity for each year enrolled. The project manual must be included. Rules for pinning and labeling insects are available from your local Extension office.

Entomology Display (SF 50186)

Open to youth enrolled in Entomology 1, Entomology 2 or Entomology 3

Exhibit any activity or display related to Entomology that does not fit into Entomology Classes 1, 2 or 3 above. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Entomology Ready4Life Challenge (SF 50187)

Open to 11- to 18-year-olds enrolled in any Entomology project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Entomology Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogramed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

ENTOMOLOGY BEEKEEPING

Each county may send 2 entries total from classes 50188, 50189, 50190; and 1 entry from 50191.

Create an exhibit that shows the public what you learned in the beekeeping project this year. **Note:** No bee hives may be exhibited. (Honey moisture content will be measured.) Fill level: the honey should be filled to the jar shoulder, not over, nor under. Chunk honey should go in a wide-mouth jar, preferably one specially made for chunk honey (see beekeeping catalogs). Be careful to distinguish "chunk honey" (comb in jar) from "cut comb" (comb only in plastic box). *Honey exhibited (including chunk, cut comb, and sections) must be collected since the previous year fair.*

Beekeeping 1 (SF 50188)

Exhibit an educational display for one (1) of the following:

- Flowers Used to Make Honey. Display pressed flowers from ten (10) different Illinois plants that bees use for making honey.
- Uses of Honey and Beeswax.
- Setting Up a Bee Hive.
- Safe Handling of Bees.
- Equipment needed by a Beekeeper.

Beekeeping 2 (SF 50189)

Exhibit one (1) of the following:

- Extracted Honey: Three (3) 1# jars, shown in glass, screw-top jars holding 1 # of honey each.
- Chunk honey (comb in jar): Three (3) 1# jars (wide-mouth glass jars).
- Cut-comb honey: Three (3) 1# boxes (boxes are usually 4 ½" x 4 ½").
- Section honey: three (3) sections of comb honey (in basswood boxes or Ross rounds).
- Working with Honey Bees. Present a topic from your manual to teach fairgoers about working with honeybees. Use your knowledge and creativity to display this information on a poster or in a notebook.

Beekeeping 3 (SF 50190)

Exhibit three (3) of the five (5) kinds of honey listed below (#1-5) or prepare an educational display about honeybees or beekeeping.

1. Extracted Honey: Three (3) 1# jars (glass)
2. Chunk Honey (comb in a jar): Three (3) 1# jars (wide-mouth glass)
3. Cut-comb Honey: Three (3) 1# boxes (boxes are usually 4 ½" x 4 ½" in size)
4. Comb Honey- 3 sections (honey built by bees in frames of wood commonly called "sections" (boxes are usually 4 ½" x 4 ½" in size)
5. Section honey: three (3) sections of comb honey (in basswood boxes or Ross rounds) or
6. Prepare an educational display about honeybees or beekeeping.

Entomology Beekeeping Ready4Life Challenge (SF 50191)

Open to 11- to 18-year-olds enrolled in any Entomology project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Beekeeping Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogramed to perform a different function other than what it was designed to do
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

EXPLORATORY

EXPLORATORY (*Welcome to 4-H*) (not eligible for state fair)

Youth ages 8 – 10 may exhibit a display on one of the following topics from the project book.

- windowsill gardening;
- 4-H animals;
- 4-H family; **OR**
- coat of arms

COLLECTIBLES (not eligible for state fair)

Bring your completed project book and your collection or examples of your collection (if it's too large to bring) with pictures of total collection, **OR** an exhibit or poster illustrating one feature of the project.

FAMILY HERITAGE

Each county may submit 1 entry from 50197; and 1 entry from 50199.

Family Heritage (SF 50197)

Prepare an exhibit of items, pictures, maps, charts, slides/tapes, drawings, illustrations, writings or displays that depict the heritage of the member's family or community or 4-H history. Please note: Exhibits are entered at 4-H'ers own risk. 4-H is not responsible for loss or damage to family heirloom items or any items in this division. Displays should not be larger than 22" x 28" wide. If the size needs to be a different size because the historical item is larger than 22'x28" please contact the superintendents for approval.

Family Heritage Ready4Life Challenge (SF 50199)

Open to 11- to 18-year-olds enrolled in any Entomology project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Family Heritage Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

FOODS & NUTRITION

Each county may submit 7 entries total from any of these food classes: 50200, 50201, 50202, 50203, 50204, 50206, 50208, 50211; and 1 entry from 50210.

4-H Cooking 101 (SF 50200)

Using the recipes included in the project manual, prepare an exhibit of 3 cereal marshmallow bars; **OR** ¼ of 8" square or round coffeecake; **OR** 3 cookies. No icing should be on any products. If you make changes to the recipe, bring a copy of the recipe with your changes. Bars, coffeecake, or cookies should be displayed on a disposable plate placed in a zip-sealing plastic bag. *In addition to your food exhibit*, complete the *What's on Your Plate? Activity* on pages 10-11 in the 4-H Cooking 101 project manual. Bring a document with printed pictures of your 3 or more plates and the answers to questions 1-7 to remain on display with your project. The words on the plates must be legible and clearly visible in the picture. Pictures, graphics or photos are acceptable.

4-H Cooking 201 (SF 50201)

Using the recipes included in the project manual, prepare an exhibit of 3 cheese muffins; **OR** 3 scones; **OR** ½ loaf (9" x 5") of basic nut bread. If you make changes to the recipe, bring a copy of the recipe with your changes. Bread, muffins, or scones should be displayed on a disposable plate placed in a zip-sealing plastic bag. *In addition to your food exhibit*, complete *Experiment with Meal Planning Activity* on page 91 in the 4-H Cooking 201 project manual. Bring either page 91 with your completed answers or a document with the answers to remain on display with your project along with a picture of the meal you prepared. You do **not** need to complete the Challenge Yourself section on page 91.

4-H Cooking 301 (SF 50202)

Using the recipes included in the project manual, prepare an exhibit of 3 dinner rolls; **OR** loaf of yeast bread; **OR** 1 tea ring; **OR** 3 sweet rolls; **OR** one layer of a Rich White Cake or Rich Chocolate Cake, top side up (*without frosting*). If icing is used on the tea ring or sweet rolls, the recipe for the icing must also come from the book. The yeast bread/roll dough may be prepared in a bread making machine; however prepared mixes are not permitted. If you make changes to the recipe, bring a copy of the recipe with your changes. Display exhibit on a disposable plate or pie tin and place in a zip-sealing plastic bag. *In addition to your food exhibit*, complete one of the six experiments: *Experiment with Flour* p. 33-34, *Experiment with Kneading* p. 35-36, *Experiment with Yeast* p. 37-38 or 39, *Experiment with Butter* p. 62-63 or *Experiment with Cheese* p. 104-105. Bring a document with a printed picture of your experiment and the answers to the experiment questions to remain on display with your project.

4-H Cooking 401 (SF 50203)

Using the recipes included in the project manual, prepare an exhibit of ¼ of a 15" x 10" loaf of focaccia bread (do not include dipping oil); **OR** one baked pie shell – traditional, oil, or whole wheat (no graham cracker); **OR** ¼ Golden Sponge Cake, top side up, without frosting; **OR** ½ loaf French Bread. If you make changes to the recipe, bring a copy of the recipe with your changes. Display exhibit on a disposable plate and place in a zip-sealing plastic bag. *In addition to your food exhibit*, pick one of the recipes from Cooking 401 that is not a choice for exhibit. Make the recipe and take a picture of the results. Bring a document with a printed picture of the food you made from the recipe and the answers to the following two questions: 1.) If you made this recipe again, what would you do differently? 2.) What did you learn that can help you in other ways besides preparing food?

Food Science 1 (SF 50204)

Prepare a display, digital presentation, or poster on one of the food science experiments from the manual that you completed. Share 1) the food science question you investigated; 2) process used to conduct the experiment; 3) results and observations; 4) what you learned; and 5) how you have applied this information. You must furnish any equipment you need for the exhibit. Internet service is not provided. All exhibits must include something visual, such as a printed copy of a digital presentation. Electronic equipment will only be used during your judging time and will not remain on display during the exhibit period.

Food Science 2 (SF 50204)

Prepare a display, digital presentation, or poster on one of the food science experiments from the manual that you completed. Share 1) the food science question you investigated; 2) process used to conduct the experiment; 3) results and observations; 4) what you learned; and 5) how you have applied this information. You must furnish any equipment you need for the exhibit. Internet service is not provided. All exhibits must include something visual, such as a printed copy of a

digital presentation. Electronic equipment will only be used during your judging time and will not remain on display during the exhibit period.

Food Science 3 (SF 50204)

Prepare a display, digital presentation, or poster on one of the food science experiments from the manual that you completed. Share 1) the food science question you investigated; 2) process used to conduct the experiment; 3) results and observations; 4) what you learned; and 5) how you have applied this information. You must furnish any equipment you need for the exhibit. Internet service is not provided. All exhibits must include something visual, such as a printed copy of a digital presentation. Electronic equipment will only be used during your judging time and will not remain on display during the exhibit period.

Food Science 4 (SF 50204)

Prepare a display, digital presentation, or poster on one of the food science experiments from the manual that you completed. Share 1) the food science question you investigated; 2) process used to conduct the experiment; 3) results and observations; 4) what you learned; and 5) how you have applied this information. You must furnish any equipment you need for the exhibit. Internet service is not provided. All exhibits must include something visual, such as a printed copy of a digital presentation. Electronic equipment will only be used during your judging time and will not remain on display during the exhibit period.

Sports Nutrition (SF 50206)

Prepare a display, digital presentation, or poster on one of the activity chapters in the manual that you completed. The activity chapters are listed by page number in the table of contents. Your exhibit should include, at minimum, information on one physical fitness component and one food/recipe component from the activity chapter. The exhibit should include the project manual with the pages of the activity completed. You may also include live demonstration of physical activities. Do not bring food made using the recipes, but consider adding pictures of the completed recipes to your exhibit. You must furnish any equipment you need for the exhibit. Internet service is not provided. All exhibits must include something visual, such as a printed copy of a digital presentation. Electronic equipment will only be used during your judging time and will not remain on display during the exhibit period.

Examples for Activity 1

Example A: Make a video of yourself practicing flexibility, strength and endurance physical fitness activities and making pasta salad with different vegetable, pasta and dressing ideas. Bring a screen shot and brief description of your video to leave on display.

Example B: Make a poster of pictures of flexibility, strength and endurance physical fitness activities and information on the results of making the spinach and mandarin orange salad. Include answers to the questions in the book.

Food Preservation (SF 50208)

Prepare an exhibit using ONE of the following food preservation methods: canning; freezing; drying; pickles/relishes; jams, jellies and preserves **OR** a combination of these (see Preservation Combination option below), excluding Freezing. **No freezer jam exhibits will be allowed for Freezing; Jams, Jellies, and Preserves; or for the Preservation Combination options.**

- **Canning** – The exhibit should include two different canned foods in appropriate jars for the products. Food may be fruit, vegetable, or tomato product (i.e. salsa, juice, etc.).
- **Freezing** – Prepare a nutrition display that illustrates a freezing principle. There is NOT a food exhibit option for this preservation method.
- **Drying** – Exhibit two (2) different dried foods packed in plastic food storage bags. Choose from fruit, vegetable, fruit leather or meat jerky.
- **Pickles and Relishes** – Exhibit two pint jars of different recipes of pickles and/or relishes.
- **Jams, Jellies, and Preserves** – Exhibit half-pint jars of two different jams, jellies, and/or preserves.
- **Preservation Combination** – Exhibit two different preserved food products, excluding Freezing, in appropriate jars/packaging (drying). For example, exhibit 1 jar of tomatoes (Canning) and 1 half-pint of jelly (Jams, Jellies, and Preserves).

All preserved products should be prepared and processed according to the current USDA/Extension information. USDA information on preserving food, including recipes, can be found at: www.homefoodpreservation.com or

web.extension.illinois.edu/foodpreservation/ Recipes must be processed in a water-bath or pressure canner.

All food exhibits must be labeled with: 1) The name of the food; 2) The date preserved; 3) Appropriate method(s) of food preservation (For canned projects: boiling water bath or pressure canner; For drying projects: Specify equipment used (food dehydrator, oven, etc.))

Examples:

- Strawberry jam, boiling water bath. July 13, 2014.
- Green beans, pressure canner. July 13, 2014.
- Beef jerky, food dehydrator and oven. July 13, 2014.

All food exhibits must be accompanied with the recipe(s) – typed or written, with the source of the recipe(s) listed..

Required Recipes and Sources for Food Preservation Exhibits – all food preservation recipes be from an approved source.

Those sources are:

- *PUT IT UP! Food Preservation for Youth* manuals
- U.S. Department of Agriculture (USDA)
- National Center for Home Food Preservation
- Ball/Kerr Canning (recipes after 1985)
- Mrs. Wages

DO NOT BRING RECIPES FROM: Magazine or newspaper clippings, Pinterest (unless it is from a source listed above), Grandma's or a recipe from a family member or friend without a source, Cookbooks (excluding the Ball, Kerr and Put It Up! book).

Canning Equipment Requirements: All canned products must be canned in clear, standard jars in good condition (no chips or cracks). Jars must be sealed using two-piece canning lids (flat lid and band). Must use a new, unused flat lid. Bands must not be rusty or severely worn.

Foods Innovation Class (SF 50211)

Open to youth enrolled in any Foods project.

Demonstrate the skills and knowledge you have gained through the project. The exhibit may include, but isn't limited to, original recipes, results of experiments not in the foods project books, variations on recipes or experimenting with unique cooking or baking methods. Your work can be displayed by a food product, demonstrations, digital presentations, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. If you bring a food product, the food will NOT be tasted.

Foods Nutrition Ready4Life Challenge (SF 50210)

Open to 11- to 18-year-olds enrolled in any Foods project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Foods Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)

- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

FORESTRY

Each county may submit 1 entry total from 50212, 50213, 50214; and 1 entry from 50216.

Forests of Fun 1 (SF 50212)

Exhibit any product or display illustrating an activity from the book. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Forests of Fun 2 (SF 50213)

Exhibit any product or display illustrating an activity from the book. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Forests of Fun 3 (SF 50214)

Exhibit any product or display illustrating an activity from the book. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Forestry Ready4Life Challenge (SF 50216)

Open to 11- to 18-year-olds enrolled in any Forestry project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Forestry Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.

- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

GEOLOGY

Each county may submit 3 entries total from 50218, 50219, 50220, 50221, 50222; and 1 entry from 50224.

Size and number of exhibit cases should relate appropriately to the number of specimens being displayed for a specified class. Specimens are not limited to Illinois locations. All levels of Geology use the same manual, Geology-Introduction to the Study of the Earth.

Pebble Pups 1 (SF 50218)

Display 8 to 19 rocks and mineral specimens with three minerals in the collections. Collection may include duplications that show variations. Label collection and note where found.

Pebble Pups 2 (SF 50219)

Display at least 20, but no more than 29, rocks and mineral specimens with seven minerals in the collections. Collection may include duplications that show variations. Label collection and note where found.

Rock Hounds 1 (SF 50220)

Display at least 30, but no more than 40, rocks and mineral specimens with ten minerals in the collection. Rocks should include at least three igneous, two metamorphic, and three sedimentary groups. Label collection and note where found.

Rock Hounds 2 (SF 50221)

Display no more than 50 specimens that have been selected to illustrate a specific theme of the exhibitor's choosing. Be creative. Sample categories could include (but are not limited to): industrial minerals and their uses; a specific rock group and the variety that occurs in that group, including some minerals that occur in that environment; select fossils traced through the geologic ages; minerals and their crystal habits; rocks and minerals used in the lapidary arts.

Geology Innovation Class (SF 50222)

Open to youth enrolled in Geology.

Demonstrate the skills and knowledge you have gained through the Geology project. Exhibit may be the result of knowledge gained from project manuals; independent study about Illinois rock(s) and mineral(s), interaction with geology professionals; and/or individual exploration in the area of geology. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Geology Ready4Life Challenge (50224)

Open to 11- to 18-year-olds enrolled in the Geology project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Geology Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

GOATS

For youth enrolled in Dairy Goats, Meat Goats

Exhibitors may show **two** entries per class, except Mother/Offspring class which is limited to **one**. Exhibitors may show in dairy as well as market, provided different animals are shown.

Dairy Goat classes as follows:

- Doe, 3 years and older
- Doe, 1 year old and under 3 years
- Doe Kid, over 5 months and under 1 year
- Doe Kid, under 5 months
- Buck Kid, under 6 months
- Mother/Offspring class (doe, wether, or buck, 6 months or less)

Pygmy classes as follows:

- Doe, 2 years and older
- Doe, 1 year and under 2 years
- Doe, over 5 months and under 1 year
- Doe, under 5 months
- Buck Kid, under 6 months
- Mother/Offspring class (doe, wether, or buck, 6 months or less)

Meat Goat classes as follows:

- Doe, 2 years and older
- Doe, 1 year and under 2 years
- Doe, over 5 months and under 1 year
- Doe, under 5 months
- Buck Kid, under 6 months
- Mother/Offspring class (doe, wether, or buck, 6 months or less)

Market Goat classes as follows:

All wethers up to 12 months of age (not over one year) and all single market goats (no bucks over 6 months) can compete in this class.

-Single market goat classes will be split into classes according to individual weight.

4-H Showmanship Awards – 4-H livestock exhibitors in Goats will be eligible for 4-H Showmanship awards. Showmanship classes will be divided into Junior (8-12 years old) and Senior (13 years & over)

Goat Animal Science (SF 50135)

Prepare a display focusing on any activity related to the goat project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made.

Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Goats Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Goat project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Goats Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogramed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

HEALTH

Each county may submit 3 entries total from 50226, 50227, 50228, 50229; and 1 entry from 50231.

Health 1 (SF 50226)

Select four First Aid Skills and complete the activities for that section. Bring the project book and be prepared to discuss the completed sections. Exhibit a family first aid kit and be prepared to explain what each item is used for.

Health 2 (SF 50227)

Select four [Staying Healthy](#) skills and complete the activities for that section. Bring the project book and be prepared to discuss the completed sections. Exhibit a "smarts" project as explained in the project manual.

Health 3 (SF 50228)

Select four Keeping Fit Skills and complete the activities for that section. Bring the project book and be prepared to discuss the completed sections. Exhibit a poster or display on one of the Keeping Fit Skills.

Health Innovation Class (SF 50229)

Open to youth enrolled in Health 1, 2 or 3.

Demonstrate the skills and knowledge you have gained through the Health project. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation,

which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Health Ready4Life Challenge (SF 50231)

Open to 11- to 18-year-olds enrolled in any Health project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Health Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

HORSE

For youth enrolled in Horse

Exhibitors may show **one** per class. ALL 4-H horse exhibitors will be automatically eligible to exhibit in a showmanship class.

- Halter – English or Western, Pony, yearling or year old male or gelding
- Western Halter – mare or gelding, 3 years & over
- English Horse Halter – mare or gelding 3 years and over
- Walk-Trot Bareback Pleasure (horse or pony) 12 & under
- Bareback Pleasure (horse or pony) 13 & over
- Beginner Walk-Trot, horse or pony, tack optional
- English Pleasure, horse or pony
- English Equitation, horse or pony, open to hunt & saddle seat
- Trail Class, horse or pony, tack optional, any age
- Western Pony Pleasure (under 56”), 12 & under
- Western Horse Pleasure (56” & over), 12 & under
- Western Horse Pleasure (56” & over), 13 & over
- Western Horsemanship, horse or pony, 12 & under
- Western Horsemanship, horse or pony, 13 & over
- Country Pleasure, horse or pony, all ages (walk & favorite gait), tack optional
- Walk-Trot Egg and Spoon, horse or pony, 12 & under
- Egg and Spoon Class, horse or pony, 13 & over
- Novelty Class – TBA
- Costume Class – Emphasis will be placed on details and originality of costume. Exhibitors are required to provide the announcer with a brief written description (to be handed in at the start of the show) on outfit, era, character,

etc.

4-H Showmanship Awards – 4-H livestock exhibitors in Horse will be eligible for 4-H Showmanship awards. Showmanship classes will be divided into Junior (8-12 years old) and Senior (13 years & over)

Horse Animal Science (SF 50135)

Prepare a display focusing on any activity related to the horse project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Horse Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Horse project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Horse Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogramed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

HORTICULTURE: FLORICULTURE

Each county may submit 3 entries total from 50192, 50193, 50194, 50195, 50196; and 1 entry from 50198.

Floriculture A (SF 50192)

Exhibit one of the following options:

- Create a flower arrangement; either a round arrangement or a bud vase. No silk flowers are permitted; **OR**
- Create a photo collage or a collection of pictures of flowers that you have raised. Label your flowers by name and tell if you started with a seed, cutting or transplants. Mount pictures on a poster board; **OR**
- Exhibit in one container, 3 stems of blooms - each with attached foliage. Foliage that would go inside the container may be removed. All three blooms or stems should be the same variety, color, shape and size and must have been grown from seed, young seedling plants, bulbs or rhizomes by the exhibitor. (NOTE: Exhibitors choosing lilies should include no more than 2/3 of foliage for their exhibit.)

Floriculture B (SF 50193)

Exhibit one of the following options:

- Create an artistic display of dried flowers explaining how each was dried; **OR**
- Create a photo collage or collection of pictures of plants from your theme garden. Label your plants by name and explain how the plants were chosen to fit the theme.

Floriculture C (SF 50194)

Exhibit one of the following options:

- Create a terrarium. Selected plants should be started by the exhibitor from cuttings or seeds or as purchased plugs. The terrarium must be cared for by the exhibitor for at least 5 months. Exhibitor should be able to explain the different plant, soil, and environmental needs and watering requirements of a closed system; **OR**
- Exhibit a plant that you propagated from cuttings, layering or division or started from seed. Create a photo board showing the progression of growth. Tips for vegetative propagation of houseplants can be found at University of Illinois Extension houseplants, <http://urbanext.illinois.edu/houseplants/default.cfm>.

Floriculture D (SF 50195)

Exhibit one of the following options:

- Create a centerpiece around a theme such as a wedding, holiday, birthday, etc. No silk flowers are permitted; **OR**
- Create an exhibit of forced bulbs in a pot.

Floriculture Display (SF 50196)**(Open to youth enrolled in Floriculture A, Floriculture B, Floriculture C, and Floriculture D)**

Present an exhibit of the member's choice that focuses on some aspect of floriculture which does not fit in the categories above. The exhibit may include, but isn't limited to, dish gardens, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Floriculture Ready4Life Challenge (SF 50198)**Open to 11- to 18-year-olds enrolled in any Floriculture project.**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Floriculture Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

HORTICULTURE: VEGETABLE GARDENING

Each county may submit 3 entries total for 50314, 50315, 50316; and 1 entry for 50318.

All vegetables exhibited must have been grown by the exhibitor as part of their current gardening 4-H project. Exhibitors should be knowledgeable about various aspects of the vegetables, including but not limited to different varieties, soil testing, fertilizers used, etc. Vegetable exhibits should be prepared according to the Illinois Vegetable Garden Guide website: <http://web.extension.illinois.edu/vegguide/>. Waxes and oils may not be used on vegetables or fruits. Any plant infested with insects will be removed from the exhibit area and will not be eligible for a Superior exhibit.

Vegetable Display (SF 50314)

(Open to youth in Vegetable Gardening A, Vegetable Gardening B, Vegetable Gardening C, and Vegetable Gardening D)

1. This class is allowed a 2'6" x 2'6" space for display.
2. Display must include 6 or more different kinds of vegetables. There may not be more than 2 different varieties of any vegetable. For example, red and white potatoes would be classified as two different varieties. Acorn squash and zucchini would be classified as two different vegetables.
3. The number and type of vegetables used must conform to the Vegetable Plate/Basket List.
4. Exhibitors must provide the name and variety of all vegetables used (i.e. Cabbage – Golden Acre; Cucumber, slicing – Straight Eight; Tomatoes, slicing – Rocky Top; Snap Beans – Contender, etc.).

Vegetable Plate (SF 50315)

(Open to youth in Vegetable Gardening A, Vegetable Gardening B, Vegetable Gardening C, and Vegetable Gardening D)

1. Exhibit must include 2 single vegetable plates. (Exhibitor will furnish the disposable plates.)
2. Number of vegetables on plates must conform to plate list below.
3. Only one variety on each plate.
4. An exhibitor cannot show two plates of the same type vegetable. (i.e.: Cannot exhibit red *and* white potatoes or zucchini *and* straightneck summer squash.)

VEGETABLE PLATE/DISPLAY LIST

When selecting vegetables for exhibition, keep in mind that the judge will evaluate them on the basis of cleanliness, uniformity, condition, quality, and trueness to variety. *(Lists are provided by UI Extension Horticulturists; Items are listed according to the correct definition of vegetables)*

Asparagus (5 spears)	Parsnips (5)
Beans, Lima (12 pods)	Peas, (12 pods)
Beets (5)	Peppers, large fruited (bell/banana) (5)
Broccoli (1 head)	Peppers, small fruited (chili/cherry) (12)
Brussels sprouts (12 sprouts)	Popcorn (5)
Cabbage (1 head)	Potatoes (any variety) (5)
Cauliflower (1 head)	Pumpkin (1)
Carrots (5)	Rhubarb, trimmed stalks (3)
Cucumber, pickling or slicing (5)	Rutabaga (5)
Eggplant (1)	Salsify (5)
Garlic (5)	Squash, summer (any variety) (3)
Kohlrabi (5)	Sweet Corn, in husks (5)
Lettuce (1 head or plant)	Tomatoes, slicing (5)
Muskmelon incl. cantaloupe (1)	Tomatoes, small fruited (12)
Okra (12)	Turnip (5)
Onions, large, dry (5)	Watermelon (1)
Onions, green or set (12)	
Squash, winter (Acorn, butternut, buttercup, spaghetti, Hubbard, Turks' Turban) (1)	
Beans, Snap, Green Pod or Golden Wax (12 pods)	
Greens (collard, endive, escarole, kale, mustard, spinach, Swiss chard) (1 plant)	
Horseradish Root (1 marketable root specimen harvested this year)	

Vegetable Gardening Display (SF 50316)

(Open to youth in Vegetable Gardening A, Vegetable Gardening B, Vegetable Gardening C, Vegetable Gardening D)

Present an exhibit of the member's choice that focuses on some aspect of vegetable gardening which does not fit in the

categories above. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Vegetable Gardening Ready4Life Challenge (SF 50318)

Open to 11- to 18-year-olds enrolled in any Vegetable Gardening project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Vegetable Gardening Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

INTERCULTURAL

Each county may submit 1 individual entry from 50233; 1 individual entry from 50234; 1 individual entry from 50236; 1 club entry from 50235. **Due to space restrictions, exhibits are limited to 2' 6" wide and 15" deep.**

Passport to the World, Individual (SF 50233)

Prepare a display illustrating what you have learned about a country's or U.S. region's geography, economy, agriculture, people, language, housing, culture, music, crafts, clothing, holidays or other aspect. Exhibit should be educational in nature and should not promote one's beliefs over another person's beliefs. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Include the project manual with completed sections that pertain to the exhibit information. Due to space restrictions, exhibits are limited to 2' 6" wide and 15" deep.

Diversity & Cultural Awareness (SF 50234)

Create a display or binder portfolio that illustrates the results of a minimum of three (3) completed activities from the project book. Due to space restrictions, exhibits are limited to 2' 6" wide and 15" deep.

Intercultural Ready4Life Challenge (SF 50236)**Open to 11- to 18-year-olds enrolled in any Intercultural project.**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Intercultural Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

INTERIOR DESIGN

Each county may submit 2 entries total from 50242, 50243, 50244, 50245; and 1 entry from 50247.

Design Decisions, Beginning (SF 50242)

Any exhibit must have been created or redesigned by the exhibitor as part of their current Interior Design 4-H project. Exhibitors should be knowledgeable about various aspects of the project. Exhibits could include items such as, but not limited to, comparison studies of different products or techniques; made accessories, wall-hangings, window coverings, or furniture items; refinished or redesigned furniture; or a plan to solve some type of interior design problem. Exhibit should be appropriate to the exhibitor's age, skills and ability in this project.

Design Decisions, Intermediate (SF 50243)

Any exhibit must have been created or redesigned by the exhibitor as part of their current Interior Design 4-H project. Exhibitors should be knowledgeable about various aspects of the project. Exhibits could include items such as, but not limited to, comparison studies of different products or techniques; made accessories, wall-hangings, window coverings, or furniture items; refinished or redesigned furniture; or a plan to solve some type of interior design problem. Exhibit should be appropriate to the exhibitor's age, skills and ability in this project.

Design Decisions, Advanced (SF 50244)

Any exhibit must have been created or redesigned by the exhibitor as part of their current Interior Design 4-H project. Exhibitors should be knowledgeable about various aspects of the project. Exhibits could include items such as, but not limited to, comparison studies of different products or techniques; made accessories, wall-hangings, window coverings, or furniture items; refinished or redesigned furniture; or a plan to solve some type of interior design problem. Exhibit should be appropriate to the exhibitor's age, skills and ability in this project.

Interior Design Innovation Class (SF 50245)**Open to enrolled in Interior Design.**

Demonstrate the skills and knowledge you have gained through the Interior Design project. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit

should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Interior Design Ready4Life Challenge (SF 50247)

Open to 11- to 18-year-olds enrolled in the Interior Design project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Interior Design Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

LEADERSHIP

Each county may submit 3 entries total from 50249, 50250, 50251, 50252; 2 entries from 50254; 1 entry from 50255.

Leadership 1 (SF 50249)

Create a binder portfolio with a minimum of four (4) completed activities each year from the areas noted below. Build upon your previous year's work. Photocopies or original pages of the completed activities from the book should be included in the portfolio.

- **First Year** – One activity from each of the following sections: Understanding Self; Communication; and Getting Along with Others, plus one of exhibitor's choice from the manual.
- **Second Year** – One activity from each of the following sections: Getting Along with Others; Learning to Learn; and Making Decisions, plus one of exhibitor's choice from the manual.
- **Third Year** – One activity from each of the following sections: Making Decisions; Managing; and Working with Groups, plus one of exhibitor's choice from the manual.

Leadership 2 (SF 50250)

Building upon your previous work, continue adding to your binder portfolio with a minimum of four (4) completed activities each year from the areas noted below. Photocopies or original pages of the completed activities from the book should be included in the portfolio.

- **First Year** – One activity from each of the following sections: Understanding Self; Communication; and Getting Along with Others, plus one of exhibitor's choice from the manual.
- **Second Year** – One activity from each of the following sections: Getting Along with Others; Learning to Learn; and Making Decisions, plus one of exhibitor's choice from the manual.
- **Third Year** – One activity from each of the following sections: Making Decisions; Managing; and Working with Groups, plus one of exhibitor's choice from the manual.

Leadership 3 (SF 50251)

Building upon your previous work, continue adding to your binder portfolio with a minimum of four (4) completed activities each year from the areas noted below. Photocopies or original pages of the completed activities from the book should be included in the portfolio.

- **First Year** – One activity from each of the following sections: Understanding Self; Communication; and Getting Along with Others, plus one of exhibitor’s choice from the manual.
- **Second Year** – One activity from each of the following sections: Getting Along with Others; Learning to Learn; and Making Decisions, plus one of exhibitor’s choice from the manual.
- **Third Year** – One activity from each of the following sections: Making Decisions; Managing; and Working with Groups, plus one of exhibitor’s choice from the manual.

Leadership Innovation Class (SF 50252)**Open to youth enrolled in Leadership 1, 2, or 3.**

Demonstrate the skills and knowledge you have gained through the Leadership project. **Your exhibit should not fit in the other exhibit options for this project.** The exhibit may include, but isn’t limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you’ve learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Leadership Ready4Life Challenge (SF 50255)**Open to 11- to 18-year-olds enrolled in any Leadership project.**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Leadership Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

NATURE: NATURAL RESOURCES AND OUTDOOR ADVENTURES

Each county may submit 3 entries from 50256, 50257, 50258, 50259; 1 entry from 50267.

Electricity and water are NOT available for these displays. **NO live animals or reptiles are permitted in these exhibits.**

Natural Resources 1 (SF 50256)

Exhibit any item developed from the project book, *Step Into Nature*.

Natural Resources 2 (SF 50257)

Exhibit any item developed from the project book, *Explore the Natural World*.

Natural Resources 3 (SF 50258)

Exhibit any item developed from the project book, *Blaze the Trail*.

Outdoor Adventure 1-3 (SF 50259)

Exhibit a display illustrating an activity completed from the project manual.

Natural Resources Ready4Life Challenge (SF 50267)

Open to 11- to 18-year-olds enrolled in any Natural Resources and Outdoor Adventures project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

NATURE: FISHING AND WILDLIFE

Each county may submit 3 entries total from 50260, 50261, 50262, 50266, 50263, 50265; and 1 entry from 50291.

Sportsfishing 1 (SF 50260)

Exhibit a product or display made to complete an activity in the *Take the Bait* project manual. This could include, but is not limited to, displays on: different types of fishing tackle, identifying different baits and their uses (no actual bait, please) or identifying the anatomy of a fish. For safety reasons, lures must be placed in a plastic case.

Sportsfishing 2 (SF 50261)

Exhibit a product or display made to complete an activity in the *Reel in the Fun* project manual. This could include, but is not limited to, displays on: different types of knots or rigs and their use; a collection of fishing lures, labeled with their use; or information on preparing and cooking fish (not recipes). For safety reasons, lures must be placed in a plastic case.

Sportsfishing 3 (SF 50262)

Exhibit a product or display made to complete an activity in the *Cast into the Future* project manual. This could include, but is not limited to, displays on: making artificial flies and lures; researching effects of water temperature; sportsfishing careers; or identifying insects that fish eat. For safety reasons, lures must be placed in a plastic case.

Wildlife 1 (SF 50266)

Exhibit any activity developed from the project manual. Be able to explain the importance of and concept behind the exhibit.

Wildlife 2 (SF 50263)

Exhibit any activity developed from the project manual. (Ex. Create a display of the life history of an animal.) Within the exhibit, explain the importance of and concept behind the exhibit.

Wildlife 3 (SF 50265)

Exhibit any activity developed from the project manual. Be able to explain the importance of and concept behind the exhibit.

Fishing & Wildlife Ready4Life Challenge (SF 50291)**Open to 11- to 18-year-olds enrolled in any Fishing or Wildlife project.**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Natural Resources Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

Exploring Your Environment 1 (not eligible for state fair)

Prepare a display or poster that illustrates an activity from the project manual. The display should demonstrate an understanding of natural and/or manmade environments, how humans affect the environment, or how the environment affects our lives. Include your project manual that documents activity recordkeeping, your answers to activity questions, and details the exhibitor's thoughts and ideas.

Exploring Your Environment 2 (not eligible for state fair)

Prepare a display or poster that illustrates an activity from the project manual. The display should demonstrate an understanding of one of the following: stewardship of natural resources, investigating greenhouse effects on living organisms, methods of reducing or managing waste in your home or community, or calculating your ecological footprint. Include your project manual that documents activity recordkeeping, your answers to activity questions, and details the exhibitor's thoughts and ideas.

PHOTOGRAPHY

Each county may submit 3 entries total from 50268, 50269, 50270, 50271, 50272; and 1 entry from 50274.

ALL photos in exhibits must have been taken by the exhibitor. Photo/Model releases from individuals pictured in the exhibitor's photographs are required unless the photograph is of a group in a public place where identification would not be an issue. The release can be obtained at: <https://4h.extension.illinois.edu/members/projects/photography> . Photos may be taken with a camera, an electronic tablet (i.e. iPad), or a cell phone.

ALL photos (including Photo Editing exhibits) must be accompanied by details of the camera settings that include:

- a. Camera/device used
- b. Aperture (F-stop)
- c. Exposure time (shutter speed)
- d. ISO (film/sensor sensitivity)
- e. Lighting used (flash, artificial, sunlight, other)
- f. Photo editing software/application used (required for ALL edits and retouches except for cropping)
- g. Filters used (lens filters and or digital/software filters)

Members are allowed to shoot on a camera's automatic setting, but should be able to find the metadata information on the photo to discuss the information above.

The exhibition size requirements for all photographs will be:

Minimum image size: 5X7

Maximum image size: 8X10

Maximum exhibit size (including frame): 18X20

All exhibitors must include unframed (taped to the back of the framed exhibit or attached to the project booklet) **un-edited** versions of either the same subject or the examples of the same technique that the framed image represents. This will assist the judge in understanding the choices made by the photographer to build the exhibited composition.

NOTE: Images taken with devices that apply an automatic filter will not be eligible for award.

Photography 1 (SF 50268)

Exhibit one framed photo which demonstrates your understanding of a technique you learned from your Photography 1 project manual. No photo editing is allowed in this class except cropping and red eye removal. Be prepared to show the page in the manual of the technique you are demonstrating.

Photography 2 (SF 50269)

Exhibit one of the options listed below:

- Exhibit one framed 8x10 close-up photograph using the skills learned on page 62-63 of the project manual titled "Bits and Pieces." No photo editing is allowed in this class except cropping and red eye removal; **OR**
- Exhibit one framed 8"x10" photo which demonstrate your understanding of a technique you learned from your Photography 2 project manual. No photo editing is allowed in this class except cropping and red eye removal. Be prepared to show the page in the manual of the technique you are demonstrating.

Photography 3 (SF 50270)

Exhibit one of the options listed below:

- Exhibit one framed 8" x 10" still-life photo that demonstrates good composition, including color, form, texture, lighting and depth of field. No photo editing is allowed in this class except cropping and red eye removal; **OR**
- Exhibit one framed 8"x10" photo which demonstrate your understanding of a technique you learned from your Photography 3 project manual. No photo editing is allowed in this class except cropping and red eye removal. Be prepared to show the page in the manual of the technique you are demonstrating.

Photo Editing (SF 50271)

Open to members in Photography 1, Photography 2, and Photography 3.

Exhibit one framed 8" x 10" photo that has been altered using digital photo-editing techniques (beyond cropping and red-eye reduction). Include a print of the original photo(s), taped to the back of the photo frame. Photos in which an automatic filter was applied at the time the photograph was taken will not be eligible for award.

Photography Innovation Class: (SF 50272)

Open to youth enrolled in Photography 1, 2, and 3.

Demonstrate the skills and knowledge you have gained through the Photography project. **Your exhibit should not fit in the other exhibit options for this project.** The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. All exhibits must include one framed photo illustrative of the work you are presenting.

Photography Ready4Life Challenge (SF 50274)

Open to 11- to 18-year-olds enrolled in any Photography project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration

and pursuit above the workmanship of the physical specimen on display.

Photography Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

PLANTS & SOILS

Plants & Soils 1 (not eligible for state fair)

Prepare a display or poster that illustrates an activity from the project manual. The display should demonstrate an understanding of environmental and internal factors that affect plant growth. Include your project journal that documents activity recordkeeping requirements, answers activity questions, and details personal thoughts and ideas.

Plants & Soils 2 (not eligible for state fair)

Prepare a display or poster that illustrates an activity from the project manual. The display should demonstrate an understanding of the composition of plants, the functions of individual plant parts, plant life cycles, and the many ways plants reproduce. Include your project journal that documents activity recordkeeping, answers activity questions, and details personal thoughts and ideas.

Plants & Soils 3 (not eligible for state fair)

Prepare a display or poster that illustrates an activity from the project manual. The display should demonstrate an understanding of environmental and internal factors that affect plant growth. Include your project journal that documents activity recordkeeping requirements, answers activity questions, and details personal thoughts and ideas.

Plants & Soils Ready4Life Challenge (not eligible for state fair)

Open to 11- to 18-year-olds enrolled in any Plants & Soils project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Plants & Soils Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)

- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

POULTRY

For youth enrolled in Poultry

Exhibitors may show **one** per class (in each breed).

MEDITERRANEAN BREEDS: Leghorns, Minorcas, Spanish, Andalusians, Anconas, Sicilian Buttercups, Catalanas

AMERICAN BREEDS: Plymouth Rocks, Dominiques, Wyandottes, Javas, Rhode Island Reds, Rhode Island Whites, Buckeyes, Chanteclers, Jersey Giants, Lamonas, New Hampshires, Hollands and Delawares.

ENGLISH BREEDS: Dorkings, Redcaps, Cornish, Orpingtons, Sussex, Australorps

ASIATIC & CONTINENTAL BREEDS: Cochins, Langshans, Brahmas -- Hamburgs, Campines, Lakenvelders, Polish, Houdans, Crevecœurs, La Fleche, Faverolles, Welsumers and Barnevelders, Marans

ALL OTHER STANDARD BREEDS: Modern Games, Old English Games, Sumatras, Malays, Cubalayas, Phoenix, Yokohamas, Aseels, Shamos, Sultans, Naked Necks, Araucanas, Ameraucanas

BANTAM BREEDS- 50% or less Size of Standard Breeds: Modern Game, Game, Single Comb, Clean Legged, Rose Comb, Clean Legged, All other Comb, Feather Legged

Poultry classes will be offered as follows:

- | | |
|--------------------------------|--------------------|
| - Single cockerel | - Hen |
| - Pullet | - Old Pen (3 hens) |
| - Pen of 1 cockerel, 2 pullets | |

Market Poultry classes will be offered for a broiler-fryer pen of 3 and a roaster pen of 3. Both include all breeds, crosses and hybrids. Birds shown in market classes may not be shown in a breed class.

Duck classes will be offered (light weight and heavy weight) for each of the following:

- | | | |
|-------|---------|-------------------|
| - Hen | - Drake | - 1 Drake, 2 Hens |
|-------|---------|-------------------|

Goose classes will be offered:

- | | | |
|---------|----------|---------------------|
| - Goose | - Gander | - 1 Gander, 2 Geese |
|---------|----------|---------------------|

Turkey classes will be offered:

- | | |
|-------|-------|
| - Hen | - Tom |
|-------|-------|

One *Egg* class will be offered.

4-H Showmanship Awards – 4-H livestock exhibitors in Poultry will be eligible for 4-H Showmanship awards. Showmanship classes will be divided into Junior (8-12 years old) and Senior (13-years & over).

Poultry Animal Science (SF 50135)

Prepare a display focusing on any activity related to the poultry project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Poultry Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Poultry project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Poultry Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

RABBITS

For youth enrolled in Rabbits

Exhibitors may show two per class.

The following breeds are **Commercial Breeds** (6-Classes): American, Giant Angora, Beveren, California, Champagne d'Argent, Checkered Giant, American Chinchilla, Giant Chinchilla, Cinnamon, Creme d'Argent, Flemish Giant, Hotot, French Lop, New Zealand, Palomino, Satin, and Silver Fox.

The following breeds are **Fancy Lop Breeds**: Lops, American Fuzzy Lop, French Lop, English Lop, Holland Lop, and Mini Lop.

The following breeds are **Fancy Breeds** (4-Classes): American Sable, French Angora, Satin Angora, Belgian Hare, Britannia Petite, Standard Chinchilla Dutch, Dwarf Hotot, English Spot, English Lop, Florida White, Harlequin, Havana, Himalayan, Jersey Woolly, Lilac, Mini Rex, Mini Satin, Netherland Dwarf, Polish, Rhinelander, Silver, Silver Marten, Lionhead, Tan and Thrianta. The Crossbred class will include any rabbit that is not a purebred rabbit and has been bred with another variety.

Classes are as follows:

Commercial Breed Classes

- | | | |
|----------------------------|-------------------------|-------------------------------|
| - Sr. Buck – over 8 months | - 6-8 Buck – 6-8 months | - Jr. Buck – 6 months & under |
| - Sr. Doe – over 8 months | - 6-8 Doe – 6-8 months | - Jr. Doe – 6 months & under |

Lop Classes

- | | |
|-------------------------------|----------------------------------|
| -Sr. Lop Buck – over 6 months | -Jr. Lop Buck – 6 months & under |
| -Sr. Lop Doe – over 6 months | -Jr. Lop Doe – 6 months & under |

Fancy Breed Classes

- | | |
|----------------------------|-------------------------------|
| - Sr. Buck – over 6 months | - Jr. Buck – 6 months & under |
| - Sr. Doe – over 6 months | - Jr. Doe – 6 months & under |

Crossbred Class

Crossbred commercial type-buck or doe that is not a purebred rabbit showing characteristics of that of rabbits listed in Commercial breeds. Crossbred fancy type-buck or doe that is not a purebred rabbit showing characteristics of that of rabbits listed in the Fancy Breeds.

- Fancy Crossbred Buck or Doe

-Crossbred Buck or Doe

Meat breeds are considered any rabbit in the Commercial breeds. MEAT PENS: Pen of three (3) meat rabbits (above 3 pounds & not over 5 pounds, and as evenly matched as possible). Pen may be of any breed or cross, not over 70 days old.

Limit of one meat pen per exhibitor.

-Meat Pen

- **Single Fryer** –Same rules apply as meat pen. Can be from meat pen or individual. **Limit of one Single Fryer per exhibitor.**

4-H Showmanship Awards – 4-H livestock exhibitors in Rabbits will be eligible for 4-H Showmanship awards. Showmanship classes will be divided into Junior (8-12 years old) and Senior (13-years & over).

Rabbit Animal Science (SF 50135)

Prepare a display focusing on any activity related to the rabbit project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Rabbits Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Rabbit project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Rabbits Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

ROBOTICS

Each county may submit 3 entries total from 50285, 50286, 50288, 50289, 50292; and 1 from 50293 to the State Fair.

NOTE: If applicable for their class and display, exhibitors must bring their own computers for demonstration purposes; computers will not be provided. Internet access will not be available.

- Exhibits in classes Robotics 1 beginning, 50285, and 50286 are designed to be used with LEGO Mindstorms (NXT or EV3).
- Any other programmable robot kit such as Arduino or Raspberry Pi, should be exhibited under Innovation Open Source class.

Robotics 1: Beginning (not eligible for state fair)

Exhibitors should complete Activities 1-6. Exhibitors will design, build and program a robot that can autonomously follow a predetermined path that changes direction at least 4 times during a single run. They will bring their Robotics Notebook to share what they learned about the engineering design process and programming.

Robotics 1: Intermediate (SF 50285)

Exhibitors should complete Activities 7-12. Exhibitors will design, build and program a robot that uses at least one sensor to autonomously follow a path, respond to, and or avoid obstacles. Exhibitors in this class must use at least one sensor in their robot design. They will bring their Robotics Notebook to share what they learned about the engineering design process and programming.

Robotics 2 (SF 50286)

Exhibitors should complete Activities 1-7. Exhibitors will design, build and program a robot that uses sensors and programming to complete one of the provided challenges. They will bring their robot and Robotics Notebook to share changes they made to the robot and/or program along the way, and to describe their experience with completing the challenge.

Robotics Innovation Open Source Class (SF 50292)

Open to youth enrolled in Robotics 3, but may also include youth in Robotics 1 or 2 if the exhibits meets the guidelines.

Exhibit an original robot, either homemade or a kit that does not fall under Robotics 1 or 2 that can complete a task using MULTIPLE sensors. If a robot kit is used, then some parts of the robot must be built using other components such as wood, plastic or metal. The robot can include any types of motors, pneumatics or sensors. The Innovation class can also be used for LEGO Mindstorms or Vex kits where the exhibit does not fall under Robotics 1 or 2 exhibit option. Autonomous control of the robot may also be achieved using an “open source” platform such as Arduino or Raspberry Pi and can be programmed using a coding language that is publicly available. Exhibitors in Robotics Innovation/Open Source class must bring a detailed engineering notebook that describes how the exhibitor designed, built and programmed the exhibit.

Junk Drawer Robotics All exhibits should be original designs made with everyday objects and materials. Exhibits with purchased kits will not be accepted. Exhibitors are also required to bring their Junk Drawer Robotics Youth Robotics Notebook with the sections completed for the project they are exhibiting, including the sections leading up to the activity they are exhibiting. For example, if a youth is bringing Activity E from Junk Drawer Level 1, they should have robotics notebook sections A-E completed.

Junk Drawer Robotics 1 (not eligible for state fair)

Exhibit any item from the “To Make” activity from the Junk Drawer Robotics Level 1 Book. Be sure all robotics notebook sections within the module being exhibited are filled in.

Junk Drawer Robotics 2 (SF 50288)

Exhibit any item from the “To Make” activity from the Junk Drawer Robotics Level 2 Book. Be sure all robotics notebook sections within the module being exhibited are filled in.

Junk Drawer Robotics 3 (SF 50289)

Exhibit any item from the “To Make” activity from the Junk Drawer Robotics Level 3 Book. Be sure all robotics notebook sections within the module being exhibited are filled in.

Robotics Ready4Life Challenge (SF 50293)**Open to 11- to 18-year-olds enrolled in any Robotics project**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Robotics Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

SHEEP

For youth enrolled in Sheep

Breeding Sheep – each exhibitor shall be limited to **two entries** in each breeding class, but may show in more than one breed.

Purebred Sheep Breeding classes will be offered for Hampshire, Dorset, Suffolk, Shropshire, Montadale, and All Other Registered breeds as follows:

- Purebred yearling ewe
- Purebred ram lamb
- Purebred ewe lamb
- Pen of 2 purebred ewe or ram lambs

Commercial and Crossbreds will be considered a separate breed and will offer the following classes:

- Ewe lamb
- Pen of 2 ewe lambs
- Yearling

Wether Sires

- Ram lamb

Market Lambs – exhibitors may enter a maximum of **four single** market lambs, **two lambs per class** and **one pen** of market lambs.

- Single market lamb
- Pen of 2 market lambs

4-H Showmanship Awards – 4-H livestock exhibitors in Sheep will be eligible for 4-H Showmanship awards. Showmanship classes will be divided into Junior (8-12 years old) and Senior (13-years & over).

Sheep Animal Science (SF 50135)

Prepare a display focusing on any activity related to the sheep project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made.

Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Sheep Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Sheep project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Sheep Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

SHOOTING SPORTS

Each county may submit 2 entries total from 50401, 50402, 50403, 50404, 50405; and 1 from 50406.

Members must be a member of an approved 4-H Shooting Sports Club to exhibit.. All exhibits should be posters or stand-alone items suitable for display to the general public. Stand-alone items have the intent to enhance the discipline such as a quiver, gun case, gun sling, locking cabinet, gun or target stand, sporting clays equipment wagon, etc. Exhibits deemed to be inappropriate by a superintendent will not be displayed.

NOTE: Shooting Sports Displays are prohibited from displaying the following:

- No live ammunition
- No knives or arrow tips (including field points, hunting broadheads, etc.)
- No functional or non-functional bows, firearms or firearm parts that could be reassembled are allowed.
- No humanoid shaped targets or reference to paintball, laser tag, air-soft, or pointing of any type of firearm or bow toward another person is allowed.
- No display involving primarily tactical design firearms (i.e. AR platform or military type firearms)
- No reference or use of the word "weapon" should be used in a display
- Make sure there are no safety violations in your display. (Example: no earplugs or safety glasses in a picture of a person shooting a firearm.)

Shooting Sports: Archery (SF 50401)

Exhibit a poster or stand-alone display depicting safe archery handling, range safety, the parts of the bow, tracking the target, target sighting, or another topic you have learned through the 4-H Shooting Sports program.

Shooting Sports: Rifle (SF 50402)

Exhibit a poster or stand-alone display depicting safe firearm handling, range safety, the parts of the rifle, tracking the target, target sighting, or another topic you have learned through the 4-H Shooting Sports program.

Shooting Sports: Shotgun (SF 50403)

Exhibit a poster or stand-alone display depicting safe firearm handling, range safety, the parts of the shotgun, tracking the target, target sighting, or another topic you have learned through the 4-H Shooting Sports program.

Shooting Sports: Hunting & Outdoor Skills (SF 50404)

Exhibit a poster or stand-alone display related to something you learned in the Hunting & Outdoor Skills project.

Shooting Sports: Pistol (SF 50405)

Exhibit a poster or stand-alone display depicting safe firearm handling, range safety, the parts of the pistol, tracking the target, target sighting, or another topic you have learned through the 4-H Shooting Sports program.

Shooting Sports Ready4Life Challenge (SF 50406)**Open to 11- to 18-year-olds enrolled in any Shooting Sports project.**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Shooting Sports Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

SMALL ENGINES

Each county may submit 1 entry total for 50294; and 1 entry for 50297.

Small Engine displays must be no larger than 4' x 4' display board. Exhibits must be portable. No complete engines, lawn tractors, tillers, chainsaws, etc. are permitted for display. No electrical power is available for displays/exhibits.

Small Engines 1-3 (SF 50294)

Exhibit a display, selecting one of the following items:

- **Ignition System:** Identify the parts of the Ignition System and explain how magnetic energy is produced through the ignition system to ignite the spark plug.
- **Compression System:** Explain how heat energy is produced by an engine and converted into mechanical energy.
- **Heat Transfer:** Explain how heat is transferred through the cooling and lubrication system of an air cooled or water cooled engine.
- **Filter Maintenance:** Explain the proper maintenance and cleaning of the air, fuel and oil filters of an engine.

- **What does a serial number reveal?:** Explain the various information that can be learned from the serial number or identification number stamped on the shroud of a Briggs & Stratton engine.
- **Tools to do the job:** Identify and explain the function(s) of different specialty tools needed for small engine work.
- **Experimentation:** Explain through illustration an experiment you conducted from the project manual showing the results of your work.

Small Engines Ready4Life Challenge (SF 50297)

Open to 11- to 18-year-olds enrolled in any Small Engines project,

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Small Engines Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

SMALL PETS

For youth enrolled in Small Pets 1, Small Pets 2, Small Pets 3, or Guinea Pigs

Animal Science Small Pets (SF 50135)

Prepare a display focusing on any activity related to the small pets project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Guinea Pig Display (SF 50135)

Prepare a display focusing on any activity related to the small pets project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Small Pets / Guinea Pig Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Small Pets project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Small Pets Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

SWINE

For youth enrolled in Swine

Breeding Swine – exhibitors may show a maximum of **four** purebred or crossbred gilts, of which only two can be in the same class; they may be of **two breeds**.

Purebred gilt classes will be offered for Duroc, Hampshire, Yorkshire, Spot/Berkshire/Poland and Other Purebred breeds as follows:

- Gilt born Jan. 1-20 - Gilt born Jan. 21 – Feb. 10 - Gilt born Feb. 11 and after

Crossbred gilts will be divided into four classes according to weight at the time of the show.

Market Pens – must have been farrowed on or after January 1, 2020. Pigs in the pen class are not required to be of the same litter. Only one pen may be shown by an exhibitor. Market Pens may consist of any combination of **three** barrows or gilts.

Market Swine – exhibitors may show a maximum of **four** barrows, of which only two can be in the same class; they may be of three breeds. Exhibitors showing a scramble barrow will be allowed to show an additional barrow, or five total in four breeds.

Purebred barrow classes will be offered for Duroc, Hampshire, Yorkshire, Spot/Berkshire/Poland and Other Purebreds. Two classes for each breed will be offered according to weight of barrows at the time of the show.

Crossbred barrows will be divided into six classes according to weight of barrows at the time of the show.

4-H Showmanship Awards – 4-H livestock exhibitors in Swine will be eligible for 4-H Showmanship awards. Showmanship classes in each of the designated divisions will be divided into Junior (8-12 years old) and Senior (13-years & over).

Swine Animal Science (SF 50135)

Prepare a display focusing on any activity related to the swine project. Demonstrate the skills and knowledge you have gained through the animal project you studied. The exhibit may include, but isn't limited to, original works, objects,

demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects.

Animal Science Swine Ready4Life Challenge (SF 50137)

Open to 11- to 18-year-olds enrolled in any Swine project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Swine Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogramed to perform a different function other than what it was designed to do
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

TECHNOLOGIES

3-D PRINTING & DESIGN: Choose one of the following classes based on your interest and skill level.

3-D Design Beginner (not eligible for State Fair)

No 3-D Printer or 3-D printed object is required for this exhibit. Exhibit a simple 3-D rendered design using Computer Aided Design (CAD) Software such as Tinker CAD or Inventor. The design must be an object that performs a specific task, and may not be based on already existing 3-D models. It must be able to be 3-D printed. Any CAD software can be used, but files must be in .STL format. Bring your design on a Jump Drive to be viewed for judging. Exhibits in this class may not have multiple parts, doors, hinges, or any sort of mechanics.

Exhibitors are expected to use the engineering design process to complete their designs. This process is important to the outcomes and exhibitors must keep a log outlining the step-by-step notes, sketches, and documentation from throughout the design process. The logbook should define the problem that is being solved/use of the object and describe in detail each step of the Engineering Design Process taken during the creation of the invention.

3-D Design Advanced (not eligible for State Fair)

Exhibitors are expected to go above and beyond those expectations set in 3-D design beginner. No 3-D Printer or 3-D printed object is required for this exhibit. Exhibit a complex 3-D rendered design using Computer Aided Design (CAD) Software such as Tinker CAD or Inventor. The design must be an object that performs a specific task, and may not be based on already existing 3-D models. It must be able to be 3-D printed. Any CAD software can be used, but files must be in .STL format. Bring your design on a Jump Drive to be viewed for judging. Exhibits in this class MUST not have multiple parts,

doors, hinges or some sort of mechanistic feature to accomplish a specific task.

Exhibitors are expected to use the engineering design process to complete their designs. This process is important to the outcomes and exhibitors must keep a log outlining the step-by-step notes, sketches, and documentation from throughout the design process. The logbook should define the problem that is being solved/use of the object and describe in detail each step of the Engineering Design Process taken during the creation of the invention.

3-D Printing Beginner (not eligible for State Fair)

Exhibit a simple 3-D printed object designed using Computer Aided Design (CAD) Software such as Tinker CAD or Inventor. The 3-D printed object must perform a specific task, and may not be based on already existing 3-D models. It must be 3-D printed using ONLY A COMMERCIALY AVAILABLE HOME/DESKTOP 3-D PRINTER. In addition, original design files must accompany each exhibit. These files must be in .STL format. Bring your design on a jump drive to be viewed for judging. Exhibits in this class may not have multiple parts, doors, hinges or any sort of mechanics.

Exhibitors are expected to use the engineering design process to complete their designs. This process is important to the outcomes and exhibitors must keep a log outlining the step-by-step notes, sketches, and documentation from throughout the design and print process. The logbook should define the problem that is being solved/use of the object and describe in detail each step of the Engineering Design Process taken during the creation of the invention.

3-D Printing Advanced (not eligible for State Fair)

Exhibitors are expected to go above and beyond those expectations set in 3-D Printing beginner. Exhibit a Complex 3-D printed object designed using Computer Aided Design (CAD) software such as Tinker CAD or Inventor. The 3-D print must be an object that performs a specific task, and may not be based on already existing 3-D models. Exhibits in this class MUST have multiple parts, doors, hinges or some sort of mechanical feature. It must be 3-D printed using ONLY A COMMERCIALY AVAILABLE HOME/DESKTOP 3-D PRINTER. In addition, original design files must accompany each exhibit. These files must be in .STL format. Bring your design on a Jump Drive to be viewed for judging.

Exhibitors are expected to use the engineering design process to complete their designs. This process is important to the outcomes and exhibitors must keep a log outlining the step-by-step notes, sketches, and documentation from throughout the design and print process. The logbook should define the problem that is being solved/use of the object and describe in detail each step of the Engineering Design Process taken during the creation of the invention.

3-D Printing & Design Ready4Life Challenge (not eligible for State Fair)

Open to 11- to 18-year-olds enrolled in any 3-D project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

3-D Print & Design Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogramed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source

Software and/or Hardware in the build.

UNMANNED AERIAL VEHICLES/SYSTEMS (DRONES):

Choose one of the following classes based on your interest and skill level.

UAV Display (not eligible for State Fair)

Prepare a display related to the Drones/UAV project on the topic of your choosing. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Non-UAV/ Drone projects should not be entered in this class.

UAV Unmanned Aerial Systems (not eligible for State Fair)

Exhibit one Unmanned Aerial Vehicle and associated system assembled or made by the member. UAV or Drone exhibits in this class must be either originally designed or built from a kit of reconfigurable parts and components. These displays are limited to multicopters (tri, quad, hex, and octocopters), as well as FPV airplanes and flying wings with wingspans up to 36". The UAV MUST have a Flight Controller and utilize a camera/video transmission system. The exhibit will be a static display. The Drone should be in good flying condition with batteries fully charged, and all UAS components (including Video System) ready to demonstrate. DO NOT display your UAV with the propellers on, but rather on the table to the side of your UAV. The Drone will not be flown unless the weather permits, and flights have been approved by the local FAA/Air Traffic Control Tower. Attach the printed directions of the UAV if any were used.

UAV Ready4Life Challenge (not eligible for State Fair)

Open to 11- to 18-year-olds enrolled in any UAV project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

UAV Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

THEATRE ARTS

Each county may 3 entries total for 50299, 50301, 50302; and 1 entry for 50304.

Theatre Arts 1 (SF 50299)

Exhibit one of the following items:

- Portfolio of acting activities completed during the current year (A video of performances is not considered a portfolio and will not be accepted for exhibit.); **OR**
- Display illustrating a drawing/photograph of a clown character created by the exhibitor; **OR**
- Display illustrating a picture story developed by the exhibitor.

Theatre Arts 3 (SF 50301)

Exhibit one of the following items:

- Portfolio of activities for set design; make-up; or sound, props, or costuming completed during the current year; **OR**
- Display that includes sound, props and costume charts appropriate for a selected scene from a story or play (limited to no more than 8 items); **OR**
- Display a scenic design model to depict a scene from a script; **OR**
- Display illustrating a character with make-up drawn or colored in. Include a photograph of a person wearing the make-up and information on the character's personality or part in the play.

Theatre Arts Innovation Class (SF 50302)

Open to youth enrolled in Theatre Arts.

Demonstrate the skills and knowledge you have gained through Theatre Arts project. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Theatre Arts Ready4Life Challenge (SF 50304)

Open to 11- to 18-year-olds enrolled in any Theatre project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Theatre Arts Maker (SF 50400)

Open to youth in all projects. Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source

Software and/or Hardware in the build.

TRACTOR

Each county may submit 2 entries total for 50306, 50307, 50308, 50309, 50310; and 1 entry for 50312.

Tractor A (SF 50306)

Exhibit a display or poster that illustrates one of the following topics: tractor safety; care and maintenance; the tractor as a valuable farm machine; or an activity listed in the project manual.

Tractor B (SF 50307)

Exhibit a display or poster that illustrates one of the following topics: cause and prevention of rollovers, diagram how an air cleaner works, diagram & identify an engine cooling system, regulations for battery & oil disposal, or another activity listed in the 4-H project manual.

Tractor C (SF 50308)

Exhibit a display or poster that illustrates one of the following topics: wagon and bin hazards, diagram and identify open and closed hydraulic systems, mower types and safety features conveyor types and safety features, or another activity listed in the 4-H project manual.

Tractor D (SF 50309)

Exhibit a display or poster that illustrates one of the following topics: method of winterizing a tractor, chemical uses and required safety equipment, parts and process of internal combustion engine, procedure for cleaning and flushing tractor radiator, or another activity.

Tractor Innovation Class (SF 50310)

Open to youth enrolled in Tractor A, B, C or D.

Demonstrate the skills and knowledge you have gained through the Tractor project. This could be related to, but not limited to, advancements in technology, enhancements to crop production, or a topic of interest to the member related to tractors or farm machinery. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Tractor Ready4Life Challenge (SF 50312)

Open to 11- to 18-year-olds enrolled in any Tractor project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Tractor Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.

- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

VETERINARY SCIENCE

Each county may submit 1 entry total from 50320; and 1 entry from 50322.

Veterinary Science (SF 50320)

(Open to youth in Veterinary Science 1, Veterinary Science 2, and Veterinary Science 3)

Prepare a display focusing on any activity related to the veterinary science project. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period. Live animals are not permitted as exhibits in this area. For safety reasons, exhibits cannot include glass, syringes with needles or any other sharp objects. Exhibits may include activities from Veterinary Science projects OR from any other Animal project area

Veterinary Science Ready4Life Challenge (SF 50322)

Open to 11- to 18-year-olds enrolled in any Veterinary Science project

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Vet Science Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

VIDEO/FILMMAKING

Each county may submit 3 entries total from 50324, 50325, 50326, 50327, 50328; and 1 entry from 50330. Enrollment in the Video project is required to exhibit in the classes in this section.

All Exhibitors must bring their video to be judged on a USB flash drive and saved in .MP4 format. Exhibitors are encouraged to post their video on YouTube.com in advance of State Fair. Exhibitors may choose whether to make the video

“public, unlisted” (someone must have the link to view it), or “private” (only people you choose may view it). This will allow fairgoers to view the exhibits on display. There will be monitors at the exhibit table for viewing videos so exhibitors will NOT need to bring a laptop or device for viewing.

Requirements that apply to ALL video classes:

Video submissions should be no longer than five (5) minutes in length (unless noted differently in class description.). Videos are to be original and a result of the member’s current year’s work. Criteria for judging shall include: (1) Evidence of story line; (2) Use of camera angles; (3) Use of zooming techniques; and (4) Smoothness of scene changes. Image and sound quality will be considered in relation to equipment available to and used by exhibitor. All videos should comply with copyright regulations and display an image that is appropriate for 4-H audiences. No time or date should be imprinted on the video footage. All videos should include an opening title screen, as well as closing credits which include date of production, name of video exhibitor and research sources if appropriate. **All Video/Filmmaking exhibitors must include a printed copy of materials which will remain on display.**

Commercial or Promotional Video (SF 50324)

Prepare a short video (30 seconds to 1 minute in length) that promotes an event, advertises a specific project/product, or is a public service announcement. The video should demonstrate skills in making and editing video.

Animated Video (SF 50325)

Video in this class should represent creative animation of original artwork created by the exhibitor and may include stop motion techniques. Media might include images created with graphics software or hand-drawn images.

Documentary (SF 50326)

Video in this class should represent a research-based investigation into a topic of choice. Video credits should list research sources and may include paper or electronically published materials, as well as, and/or interviews with experts or constituents related to the topic of investigation.

Short Story or Short Narrative (SF 50327)

Prepare a short video that tells a story. The video should demonstrate skills in making and editing video.

Video/Filmmaking Innovation Class (SF 50328)

Open to youth enrolled in Video/Filmmaking

Demonstrate the skills and knowledge you have gained through the Video project. **Your exhibit should not fit in the other exhibit options for this project.** The exhibit may include, but isn’t limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you’ve learned. Your exhibit should not fit in the other exhibit options for this project. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Video/Film Ready4Life Challenge (SF 50330)

Open to 11- to 18-year-olds enrolled in any Video/Film project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Video Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.

- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.

VISUAL ARTS

Each county may submit one entry from these projects:

- Food Decorating (1 total from 50332, 50333, 50334, 50335)
- Chalk/Carbon/Pigment on wood, metal or textiles (Division B) 50352
- Clay 50337
- Computer-Generated Art 50338
- Fiber 50339
- Fiber Non-Original Ages 8-10 Only 50350
- Glass/Plastic 50340
- Heritage Arts 50341
- Leather 50321
- Metal 50342
- Nature 50343
- Paper 50344
- Scrapbooking (1 total from 50345, 50346, 50347)
- Three-Dimensional Design/Mixed Media 50348
- Wood 50349
- Ready4Life 50351

Each county may submit two entries from Chalk/Carbon/Pigment on canvas, paper or glass (Division A) 50336

Exhibitors must be enrolled in the Visual Arts project category in which they are exhibiting. Exhibitors are encouraged to date the project when it is made. All visual arts exhibits are evaluated using a visual arts rubric which takes into account correct use of design elements; craftsmanship; and creativity.

Articles exhibited must be an original design created by the exhibitor (except in heritage arts which may follow a pattern **AND** Fiber-Non Original Ages 8-10 **ONLY**). Copyrighted or trademarked designs are not acceptable; this includes Team or School logos. Kits and preformed molds are not considered original and are not acceptable in any Visual Arts Class. Combining parts of different patterns (pictures, photographs, images from the internet or a magazine) with the member's own ideas can result in an original design, but simply changing the color, pattern and/or size of a pattern does **NOT** make the design original. This also applies for ideas found on a site such as Pinterest. If you see something on Pinterest that you like, use the concept and create something different using the concept; however if it **MUST NOT** look exactly like something the judge can search for and find on Pinterest. The exhibit must combine parts of different patterns and/or ideas with the concepts of the member, however changing the color or changing the size of the item or pattern used does **NOT** make it original. If you create a replica of what you see somewhere else, it is not your original design. If a photo, sketch, or other idea source was used, submit it with your entry, firmly attached to your exhibit. Be prepared to explain how and where you got the idea for this project.

Members wishing to exhibit quilts made from a pattern may enter it in Heritage Arts. Quilts exhibited in the Visual Arts – Heritage Arts area will be evaluated using a visual arts rubric which takes into account correct use of design elements; craftsmanship; and creativity. All work on the quilt **MUST** be completed by the 4-H member. You cannot exhibit a quilt that was quilted by someone else.

Visual Arts Food Decorating Beginning (SF 50332)**Exhibit one of the following:**

- Exhibit four decorated cookies, using a minimum of four different techniques. Exhibit may use cookies OR cookie forms.
- Exhibit four decorated cupcakes, using a minimum of four different techniques. Exhibit may use cupcakes OR cupcake forms.
- Exhibit a single layer decorated cake, using a minimum of four different techniques. Exhibit may use cake OR cake form.

Visual Arts Food Decorating Intermediate (SF 50333)**Exhibit one of the following:**

- Exhibit four decorated cookies, using a minimum of five Level 2 techniques. Exhibit may use cookies OR cookie forms.
- Exhibit four decorated cupcakes, using a minimum of five Level 2 techniques. Exhibit may use cupcakes OR cupcake forms.
- Exhibit a single layer or two-layer cakes, using a minimum of five Level 2 techniques. Exhibit may use cake OR cake form.

Visual Arts Food Decorating Advanced (SF 50334)

Exhibit a decorated, stacked and/or tiered cake, using a minimum of four Level 3 techniques. Exhibit may use cake OR cake form.

Visual Arts Food Decorating Master (SF 50335)

Exhibit to include a one-page written description of your project, including goals, plans, accomplishments, and evaluation of results. Include up to four pictures of your accomplishments **AND** exhibit an original design decorated cake using more than five techniques. Exhibit may use cake OR cake form.

Visual Arts Chalk/Carbon/Pigment: Enter the division based on the type of material on which the art was created.

Division A: Canvas, Paper, Glass: (SF 50336)

Any original art work done with pencils, chalk, pens, ink, paint, charcoal, dyes, etc. on canvas, paper, or glass. This would include all painting, sketching, drawing, cartooning, printing, etc. Painted and/or glazed pre-formed ceramics and painted porcelain dolls are not eligible for State Fair exhibit. Drawings and paintings should be matted or framed under glass. (Exceptions: Oil and acrylic paintings do not require glass and are not required to be matted.) Water color, chalk, pen & ink, computer-generated art, etc. do require some protective covering. Gallery frames are acceptable. Canvas paintings that continue "over the edges" are acceptable without frames; however, the piece must still be prepared for hanging. Matted pieces without frames are acceptable, however the piece must be prepared for hanging OR it must include a photo of the artwork being displayed in a non-hanging manner. There is no specific requirement for the type of mat used.

Division B: Wood, Metal, Textiles: (SF 50352)

Any original art work done with pencils, chalk, pens, ink, paint, charcoal, dyes, etc., on wood, metal, or textiles. Painted and/or glazed pre-formed ceramics and painted porcelain dolls are not eligible for State Fair exhibit. Any exhibits created as a piece of wall art must be prepared for hanging.

Visual Arts Clay: (SF 50337)

Any original item made of clay; may be fired or unfired, hand formed or thrown on a wheel. Self-hardening clays are fine. Fire/oven-cured and cornstarch clay could be accepted. Items can include, but are not limited to, clay statues, bowls, jewelry, etc. Pre-formed ceramics are not eligible for State Fair exhibit.

Visual Arts Computer-Generated Art: (SF 50338)

Any original art created in any software package. Exhibit may not include scanned work, clip art, downloaded images from the internet, any imported image, or photographs. All pixels must be original. Photo mosaics are NOT allowed. Exhibitors in this class (like all other classes in this sub-section) must be enrolled in Visual Arts; Computer project enrollment is not required. **NOTE:** Wood and metal exhibits created through the use of laser cutting programs/devices should be entered in this class. Plastic exhibits with an artistic focus created using a 3-D printer should be entered in this class. If the art created is designed to hang, then the entry should have some protective covering, such as a glass frame, and prepared for hanging. If the art is something that has been created with a laser cutting program/device and is NOT designed to hang, it does not require protective covering nor does it need to be prepared to hang.

Visual Arts Fiber: (SF 50339)

Any original item made of fiber. Examples are quilts, fabric collage, soft sculpture, stitchery, weaving, embroidery, cross-stitch, wearable art, hooking, braiding, duct tape artistry, and baskets. **Original** cross-stitched, knitted, crocheted or quilted items belong in this Fiber class. **Non-original** cross-stitched, knitted, crocheted or quilted items should be entered in Heritage Arts. Machine knitted items are not appropriate for this class.

Visual Arts Fiber Non-Original AGES 8-10 ONLY: (SF 50350)

Any non-original item made of fiber. Examples are fabric collage, soft sculpture, stitchery, weaving, embroidery, cross-stitch, crocheting, knitting, weaving, hooking, and felting. Exhibitors may use a pattern and/or an idea generated from another source.

Visual Arts Glass/Plastic: (SF 50340)

Any original item made of glass or plastic. Possible items to exhibit include stained glass, etched glass (original design), mosaics made of glass, glass beading, plastic jewelry (friendly plastic). Interlocking building block creations (i.e. LEGOS) are not suitable for State Fair entry. Stepping stones or wall hangings that include cement decorated with glass or plastic items are not suitable for this class.

Visual Arts Heritage Arts: (SF 50341)

Exhibit an item of **traditional** art learned from another person or **from a pattern** (NO KITS) may be entered in this class. Non-original cross-stitched, knitted and crocheted items by pattern fit in this class. ALL ORIGINAL cross-stitched, knitted and crocheted items should be exhibited in Fiber Arts; (machine knitted items ARE NOT acceptable for this class.) Other possibilities include: needlepoint, counted cross-stitch, crewel, embroidery, cut work, hardanger (embroidery openwork), macramé, baskets, candles, pysanki (decorated eggs), leather, quilts, baskets (made using a traditional pattern), traditional handmade dolls with handmade costumes, or candles. No machine quilting allowed in Heritage Arts. Exhibitors must also bring 1) the pattern or a copy of the pattern they used to create their traditional art; and 2) a description of the traditional origins of their art choice.

Visual Arts Leather: (SF 50321)

Exhibit one of the following options using leather.

- Leather: Stamping: Exhibit should utilize one or more stamping techniques – exhibit examples include items such as belt; coasters; bookmark; key chain; wrist bracelet.
- Leather: Carving or Tooling: Exhibit should use simple swivel knife tooling techniques or may incorporate several swivel knife-tooling designs or patterns – exhibit examples include items such as belt; pictorial carving; key case.
- Leather: Lacing: Exhibit to include stamping and/or carving techniques incorporated with lacing techniques – exhibit examples include items such as wallets; purses; etc.
- Leather: Stitching: Exhibit may include stamping; carving and/or lacing techniques and should be a leather item or article of apparel, which incorporates hand-sewing techniques.

Visual Arts Metal: (SF 50342)

Any original item made of metal such as sculpture, tin punch, engraved metal, and jewelry. Items intended for industrial use (as tools and/or shop items) are not considered part of this Visual Arts project and are not eligible for entry. Metal items that have been partially or totally created through the use of laser cutting programs/devices should be entered in Computer-Generated Art.

Visual Arts Nature: (SF 50343)

Any original item made of natural material such as wreaths, cornhusk dolls, etc. Items should be made of natural materials (which may be purchased) but securing elements such as glue and wire may be used in the inner construction as long as they do not detract from the overall "natural" appearance. Articles such as dried pressed flowers may be displayed under glass since it is necessary for protection/preservation of the natural materials. Candles are not suitable as entries. All baskets should be entered in Heritage Arts.

Visual Arts Paper: (SF 50344)

Any original item made of paper. Examples could include origami; greeting cards; paper-cut designs, paper mache, hand-made paper, paper collage, paper models of architecture, quilling, etc. Paper twist articles, made from directions in craft books and stores ARE NOT original and are not appropriate for this class. Scrapbooks should be exhibited in Visual Arts Scrapbooking.

Visual Arts Scrapbooking, Beginning: (SF 50345)

Exhibit one album or notebook, either 8 ½" x 11" or 12"x12", with a front and back cover. The album/notebook must have a minimum of 4 pages (front and back, 8 sides), exhibited in page protectors. "Embellishments" are defined as the decorations or special details and features that add to a page and make it more visually appealing. Embellishments may include, but are not limited to, ribbon, clips, special lettering, etc. Beginners must use a minimum of four embellishments and tell a story with pictures.

Visual Arts Scrapbooking, Intermediate: (SF 50346)

Exhibit one album or notebook, either 8 ½" x 11" or 12"x12", with a front and back cover. The album/notebook must have a minimum of 4 pages (front and back, 8 sides), exhibited in page protectors. "Embellishments" are defined as the decorations or special details and features that add to a page and make it more visually appealing. Embellishments may include, but are not limited to, ribbon, clips, special lettering, etc. Intermediate level exhibitors must use a minimum of eight embellishments and tell a story with pictures and journaling.

Visual Arts Scrapbooking, Advanced: (SF 50347)

Exhibit one album or notebook, either 8 ½" x 11" or 12"x12", with a front and back cover. The album/notebook must have a minimum of 4 pages (front and back, 8 sides), exhibited in page protectors. "Embellishments" are defined as the decorations or special details and features that add to a page and make it more visually appealing. Embellishments may include, but are not limited to, ribbon, clips, special lettering, etc. Advance level exhibitors must use a minimum of 12 embellishments and tell a compelling story with pictures, journaling, and other media.

Visual Arts Three-Dimensional Design/Mixed Media: (SF 50348)

Art pieces in this class must be comprised of **at least three different media**. No one medium can make up more than 40% of a piece. The piece should **be either freestanding or should be prepared to be hung**. It must be observable on at least three different sides. Originality and design are important concepts. Craft and preformed or assembled projects are not acceptable.

Visual Arts Wood: (SF 50349)

Any original item made of wood (wood carving, sculpture, collage, wood burning, etc.). Utilitarian wood items made from patterns or kits (e.g. outdoor or indoor furniture, shelves) should be entered in woodworking, not in visual arts. Popsicle stick crafts are not acceptable for State Fair entry. Wood items that have been partially or totally created through the use of laser cutting programs/devices should be entered in Computer-Generated Art. All Visual Arts Wood exhibits **MUST** have an artistic element that the exhibitor can explain. Furniture built by the exhibitor aligns with the Woodworking project area – unless the element to be judged is wood carving or wood burning that is one element of the exhibit. Exhibits will be judged using a Visual Arts Rubric and not a woodworking construction rubric.

Visual Arts Ready4Life Challenge: (SF 50351)**Open to 11- to 18-year-olds enrolled in any Visual Arts project.**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Visual Arts Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.

- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

WEATHER

Each county may submit 1 entry total 50392, 50393, 50394; and 1 entry from 50395.

Weather and Climate Science I (SF 50392)

Exhibit any product or display illustrating an activity from the book. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Weather and Climate Science 2 (SF 50393)

Exhibit any product or display illustrating an activity from the book. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Weather and Climate Science 3 (SF 50394)

Exhibit any product or display illustrating an activity from the book. The exhibit may include, but isn't limited to, original works, objects, demonstrations, digital presentations, programs, websites, games, apps, performances, or posters which you have made. Choose whatever method best shows what you've learned. You must furnish any equipment you need for your exhibit. Internet service will not be provided for the exhibit. All exhibits must include something visual, such as a printed copy of a digital presentation, which will remain on display during the exhibition. Electronic equipment will only be used during your personal judging time and will not remain on display during the entire exhibit period.

Weather Ready4Life Challenge (SF 50395)

Open to 11- to 18-year-olds enrolled in any Weather and Climate project.

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Weather Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

WELDING

Each county may submit 2 entries total from 50353; and 1 entry from 50355.

Welding (SF 50353)

This exhibit class is open to members who are in the 7th grade and higher. Exhibit one Arc weldment/item demonstrating the skill level of the exhibitor. Members new to the project should consider selecting a weldment from the suggested Weldment List found on page 43 of *Arcs and Sparks* (4-H 573 – Shielded Metal Arc Welding). **This class is for industrial welding only.** (Members that wish to use welding to create objects with an artistic appeal should consider enrolling in the 4-H Visual Arts project and consider entering those types of exhibits in the Visual Arts – Metal class.) Exhibits must be portable and cannot be exhibited on a trailer.

Welding Ready4Life Challenge (SF 50355)

(Open to 11- to 18-year-olds enrolled in any Welding project)

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Welding Maker (SF 50400)

Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project MUST abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and MUST be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device MUST be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit MUST be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits MUST include a detailed build log with instructions on how to make or build the exhibit, AND contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build MUST be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are HIGHLY encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also HIGHLY encouraged that exhibits use Open Source Software and/or Hardware in the build.

WOODWORKING

Each county may submit 2 entries total from 50357, 50358, 50359, 50360; and 1 entry from 50362.

Woodworking 1 (SF 50357)

Any item made of wood constructed or refinished by the member, appropriate for their age, skills and ability in this project. Pre-cut kits assembled by the member are not acceptable. Exhibits must be portable and cannot be exhibited on a trailer.

Woodworking 2 (SF 50358)

Any item made of wood constructed or refinished by the member, appropriate for their age, skills and ability in this project. Pre-cut kits assembled by the member are not acceptable. Exhibits must be portable, and cannot be exhibited on a trailer.

Woodworking 3 (SF 50359)

Any item made of wood constructed or refinished by the member, appropriate for their age, skills and ability in this project. Pre-cut kits assembled by the member are not acceptable. Exhibits must be portable, and cannot be exhibited on a trailer.

Woodworking 4 (SF 50360)

Any item made of wood constructed or refinished by the member, appropriate for their age, skills and ability in this project. Pre-cut kits assembled by the member are not acceptable. Exhibits must be portable, and cannot be exhibited on a trailer.

Woodworking Ready4Life Challenge (SF 50362)**Open to 11- to 18-year-olds enrolled in any Woodworking project**

Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.

Woodworking Maker (SF 50400)**Counties may submit 3 entries TOTAL combined from all Maker exhibit divisions.**

Exhibits in this category are designed to be multi-disciplinary in nature, innovative, and must not fit into any other exhibit category. To qualify for this category, your project **MUST** abide by the following guidelines:

- Exhibits must be an object or device that has an intended purpose and uses technology in either a mechanical way, digital (computer) way, or combination of the two.
- The device must be something that can be used in everyday life by multiple people (a target audience), and **MUST** be manufactured/built by the exhibitor (If not fully manufactured by the exhibitor, the device **MUST** be modified structurally or be reprogrammed to perform a different function other than what it was designed to do)
- Exhibit **MUST** be able to interact with the outside world. (e.g. an on off switch, input sensors, feedback, etc.)
- Exhibits **MUST** include a detailed build log with instructions on how to make or build the exhibit, **AND** contain either a 3D rendering or detailed and labeled sketches of the device/product.
- All parts and software used in the design/build **MUST** be listed in a detailed Bill of Materials including cost per item and total cost. Total time spent on the build must be documented in your build log.

In addition, exhibitors are **HIGHLY** encouraged to use tools such as 3-D printers, laser cutters, routers and/or other hand/power tools to help in the manufacturing process (**NOTE: Simply 3-D printing or laser cutting an object without the other specifications does not qualify as a Maker Project**). It is also **HIGHLY** encouraged that exhibits use Open Source Software and/or Hardware in the build.



Mason County Fairgrounds Map

