

# DEPARTMENT 016 – NATURAL SCIENCES

Fair Year: 2023

Entries must be made by July 31 of exhibit year.  
Face-to-face judging the Saturday before the fair,  
9:00 am-2:00 pm, Youth Building.

Poster size: 14"x22". Tri-fold displays are not allowed.

Exhibitors are limited to ten (10) entries in Department 016.

Premiums: \$2.00 - \$1.75 - \$1.50 - \$1.25

## DIVISION 155 – EXPLORING YOUR ENVIRONMENT

Open to youth enrolled in the 4-H Exploring Your Environment or Water projects or youth of other groups doing equivalent work.

### Class No.

1. Exhibit on geological events, such as glaciers, earthquakes, or volcanoes
2. Exhibit of a rock collection, fossil, or mineral (labeled)
3. Exhibit of jewelry or craft made from rocks
4. Exhibit of soils from Wisconsin
5. Display of soil erosion
6. Display on soil and water conservation
7. Exhibit on clouds, air pressure, wind, heat
8. Exhibit of weather instruments
9. Exhibit of weather records you have kept
10. Exhibit of how weather affects people
11. Exhibit showing wildlife as a resource
12. Identify wildlife and their foods
13. Exhibit on endangered species
14. Exhibit on Wisconsin game birds or animals
15. Wildlife management/practices or plan
16. Exhibit on human impact on wildlife habitat
17. Exhibit on camouflage nature
18. Exhibit of animal tracks
19. Exhibit on interrelationships of humans, plants, wildlife, water, air, and sun
20. Display on food web
21. Display on human effects on environment
22. Any other environmental or water project exhibit

## DIVISION 156 – WILD BIRDS

Open to youth enrolled in the 4-H Bird project or youth of other groups doing equivalent work.

### Class No.

1. Exhibit of at least 5-10 birds (drawings or pictures, properly labeled; food habits, migratory habits, habitat and nesting habits of each bird included)
2. Picture or drawing of bird parts
3. Recording of 10 bird sounds (properly identified)
4. Two different bird feeders or bird houses
5. Exhibit bird observation
6. Photo display of 5 different birds
7. Any other bird related exhibit

## DIVISION 157 - WILDFLOWERS

Open to youth enrolled in the 4-H Wildflower project or youth of other groups doing equivalent work.

### Class No.

1. Homemade plant press (with explanation of use)
2. Exhibit pressed blossom of a flower (with all flower parts properly labeled)
3. Collection of 10 kinds of wildflower seeds (show dispersal by wind, water, birds, and mammals)
4. Mounted collection of 10 wildflower photos
5. Wildflower arrangement
6. An exhibit on edible or medicinal plant uses
7. A photo story (show the creation and maintenance of a wildflower garden)
8. Collection of 10-15 different wildflowers (pressed, mounted, and labeled on index cards, covered with clear contact paper)

9. Any other exhibit related to wildflower management

## DIVISION 158 – FORESTRY

Open to youth enrolled in the 4-H Forestry project or youth of other groups doing equivalent work.

### Class No.

1. Collection of leaves, winter twigs, and fruit of 10 trees (identify name of tree, date of collection, county, habitat)
2. Collection of 10 kinds of tree seeds (include name of tree, means of seed dispersal, desirable seedbed conditions, date, and place of collection)
3. 15 different leaf prints (labeled according to species)
4. Collection of at least 15 different tree leaves found in Northeast Wisconsin (properly labeled)
5. Biltmore and height estimating stick or log scale stick
6. Chart or diagram showing the annual life history of a tree
7. Display tree ailments and suggested cure
8. Collection of 10 lumber specimens of native trees (label with name of wood properties, uses, and date of collection)
9. One pint of maple syrup (also bring an additional small sampling size)
10. A display of maple sugaring equipment with written explanation of how it's used
11. Exhibit on managing woodlands
12. Exhibit on Christmas tree production
13. Any other forestry/tree exhibit

## DIVISION 159

### ADVENTURES

Open to youth enrolled in the 4-H Adventures project or youth of other groups doing equivalent work.

### Class No.

1. Exhibit of work assignments, from cooking to cleaning
2. Exhibit of individual to team duties
3. Exhibit of camping equipment
4. Exhibit of camping safety
5. Exhibit of outdoor survival skills
6. Exhibit of common knots used while camping
7. Exhibit on wilderness ethics
8. Exhibit of a one-day camping menu
9. Report on a camping experience
10. Any other camping exhibit

### WINTER TRAVEL

Open to youth enrolled in the 4-H Winter Travel project or youth of other groups doing equivalent work.

### Class No.

11. Exhibit on care and maintenance of winter travel equipment
12. Exhibit on selection of winter travel equipment
13. Exhibit on winter travel safety
14. Report on your winter travel experience
15. Report on winter travel opportunities
16. Any other winter travel exhibit

### CANOEING/KAYAKING

Open to youth enrolled in the 4-H Canoeing / Kayaking project or youth of other groups doing equivalent work.

### Class No.

17. Exhibit on canoe/kayak equipment
18. Exhibit on canoe/kayak safety
19. Exhibit on canoe/kayak trip (photos optional)
20. Exhibit on paddling techniques
21. Any other canoe/kayak exhibit
22. Exhibit on river information – ie. history, river conditions, animal life, etc.

## BICYCLING

Open to youth enrolled in the 4-H Bicycling project or youth of other groups doing equivalent work.

### Class No.

23. Exhibit of equipment selection for bicycling trip
24. Report on bicycle trails
25. Poster on preparing for a bicycle trip
26. Comparison of two or more bicycle trips (photos optional)
27. A plan for bicycling camping trip
28. Exhibit on bicycle safety
29. Any other bicycle exhibit

## BACKPACKING

Open to youth enrolled in the 4-H Backpacking project or youth of other groups doing equivalent work.

### Class No.

30. Basic backpacking equipment display
31. One-day backpacking menu display (professionally/creatively displayed)
32. Exhibit of a first aid kit with an inventory list for backpacking
33. Story of backpacking trip (photos optional)
34. Any other backpacking trip exhibit
35. Exhibit on orienteering
36. Exhibit on safety

## DIVISION 160 – INSECTS/ENTOMOLOGY

Open to youth enrolled in the 4-H Entomology project or youth of other groups doing equivalent work.

Insects exhibited must have been collected since last year's fair.

### Class No.

1. Identify insect parts
2. Display showing how insects move
3. Exhibit on insect communication
4. Display showing insect control
5. Collection of 15 types of insects (properly mounted)
6. Exhibit on entomology careers
7. Collection of 10 insects representing 4 different mouth types
8. Collection of insect wings showing wing types and parts
9. Exhibit on insect observations
10. Exhibit on an insect life cycle
11. Exhibit on beekeeping
12. One pound jar of extracted honey
13. Comb honey – 1 comb
14. Bee's wax exhibit – 3 items
15. Display of beekeeping equipment with written explanation of how used
16. Any other entomology exhibit

## DIVISION 161 – SHOOTING SPORTS

### ARCHERY

Open to youth enrolled in the 4-H Archery project or youth of other groups doing equivalent work.

### Class No.

1. Educational poster on the parts of a bow and arrow
2. Educational poster or display on archery equipment
3. Poster illustrating and briefly explaining proper sight alignment for archery
4. Poster showing proper shooting stance
5. Poster on archery safety
6. Exhibit or scrapbook of a detailed accounting of your participation and progress in your shooting sports project. May include logs, diary, photography, documented targets, graphical presentation of shooting scores or other.
7. Exhibit or report of competition experience
8. Display or report on the history of archery

9. Poster on Wisconsin hunting laws and regulations
10. Homemade hip or belt quiver
11. Homemade ground quiver
12. Homemade armguard, finger tab, or glove
13. Homemade arrow
14. Homemade bow
15. Homemade bow case (fabric or wood)
16. Target backstop, bow rack, or arrow rack
17. Any other exhibit related to archery

### **ARCHERY – TARGET, INDIVIDUAL SHOOT**

Open ONLY to youth enrolled in the 4-H Archery Project, who have participated in at least 2 county led practices.

Exhibitors may only enter in ONE class.

Date, time, and location of the shoot will be posted in the July and August 4-H newsletter.

Entrants have the option of bringing their own equipment or using 4-H bows. Bare-bow has no sighting devices or stabilizers. Freestyle bow may include sights, release aids, and/or stabilizers. (Grades just completed.)

#### **Class No.**

18. Grades 9-13 – Compound Bare-bow
19. Grades 9-13 – Compound Freestyle
20. Grades 9-13 – Recurve Bare-bow
21. Grades 9-13 – Recurve Freestyle
22. Grades 6-8 – Compound Bare-bow
23. Grades 6-8 – Compound Freestyle
24. Grades 6-8 – Recurve Bare-bow
25. Grades 6-8 – Recurve Freestyle
26. Grades 3-5 – Compound Bare-bow
27. Grades 3-5 – Compound Freestyle
28. Grades 3-5 – Recurve Bare-bow
29. Grades 3-5 – Recurve Freestyle

### **AIR RIFLE**

Open to youth enrolled in the 4-H Air Rifle project or youth of other groups doing equivalent work.

#### **Class No.**

30. Educational poster showing the parts of an air rifle
31. Educational poster or display showing proper care and maintenance of an air rifle
32. Poster illustrating and briefly explaining proper sight alignment for air rifle
33. Poster showing proper shooting stance
34. Poster on air rifle safety
35. Exhibit or scrapbook of a detailed accounting of your participation and progress in your shooting sports project. May include logs, diary, photography, documented targets, graphical presentation of shooting scores or other.
36. Exhibit or report of competition experience
37. Target holder made from PVC pipe or from wood
38. Homemade shell pouch
39. Homemade kneeling roll
40. Homemade shooting bench
41. Homemade pellet block or stand
42. Homemade gun case (fabric or wood)
43. Any other exhibit related to air rifle

### **.22 RIFLE**

Open to youth enrolled in the 4-H .22 Rifle project or youth of other groups doing equivalent work.

#### **Class No.**

44. Poster display identifying the parts of a firearm
45. Poster on the proper care and maintenance of a rifle
46. Poster illustrating and briefly explaining proper sight alignment for 0.22 cal rifle
47. Poster showing proper shooting stance
48. Poster on .22 rifle safety
49. Exhibit or scrapbook of a detailed accounting of your participation and progress in your shooting sports project. May include logs, diary, photography, documented targets, graphical presentation of shooting scores or other.

50. Exhibit or report of competition experience
51. Poster on Wisconsin hunting laws and regulations
52. Target holder made from PVC pipe or from wood
53. Homemade rifle sling
54. Homemade shell pouch
55. Homemade kneeling roll
56. Homemade shooting bench
57. Homemade pellet block or stand
58. Homemade gun case (fabric or wood)
59. Any other exhibit related to .22 rifle

### **SHOTGUN**

Open to youth enrolled in the 4-H Shotgun project or youth of other groups doing equivalent work.

#### **Class No.**

60. Poster display identifying the parts of a firearm
61. Poster on the proper care and maintenance of a shotgun
62. Poster illustrating and briefly explaining proper sight alignment for shotgun trap gun
63. Poster showing proper shooting stance
64. Poster on shotgun safety
65. Exhibit or scrapbook of a detailed accounting of your participation and progress in your shooting sports project. May include logs, diary, photography, documented targets, graphical presentation of shooting scores or other
66. Exhibit or report of competition experience
67. Poster on Wisconsin hunting laws and regulations
68. Target holder made from PVC pipe or from wood
69. Homemade shotgun sling
70. Homemade shell pouch
71. Homemade kneeling roll
72. Homemade shooting bench
73. Homemade pellet block or stand
74. Homemade gun case (fabric or wood)
75. Any other exhibit related to shotgun

### **AIR RIFLE AND .22 RIFLE COMPETITIVE SHOOT**

Youth MUST have attended a minimum of three project meetings in order to participate in the fair shooting competition. All four stances will be used. Scoring done as regular shooting competition.

Competition date, time, and location will be publicized in the July and August 4-H Newsletter.

76. Air rifle, open sight
77. Air rifle, with scope
78. .22 rifle, open sight
79. .22 rifle, with scope

### **DIVISION 162 –RECYCLING**

Open to youth enrolled in the 4-H Recycling project or youth of other groups doing equivalent work.

#### **Class No.**

1. Design a landfill
2. Display or exhibit on turning trash into cash
3. Display or poster showing how to recycle or the importance of recycling
4. Exhibit of renewable and non-renewable resources
5. Display or exhibit on how to compost
6. Exhibit of 3 items made from recycled materials
7. Any other recycling project

### **DIVISION 163 – FISHING**

Open to youth enrolled in the 4-H Fishing project or youth of other groups doing equivalent work.

#### **Class No.**

1. Exhibit showing 5 fish in their habitat
2. Any aspect of fishing safety
3. Exhibit of 10 knots for fish/boating (mounted and labeled)
4. Exhibit of 5 fishing lures (made by exhibitor, explain intended use)

5. Exhibit of 2 or more lures (made from recycled materials)
6. Exhibit of types of bait
7. Exhibit showing types of insects fish like to eat
8. Exhibit showing angling ethics
9. Tackle box inventory check list with tackle box
10. Exhibit explaining how to use spinning rod and reel
11. Exhibit showing fish adaptations
12. Exhibit showing parts of fishing reel
13. Personal fishing journal (may include lake map)
14. Exhibit of fish handling (preserving or preparing)
15. Any aspect of boating or fishing safety
16. Any other related fish/fishing exhibit

### **DIVISION 164 - WISCONSIN WILDLIFE**

Open to all enrolled 4-H youth. All wildlife exhibits must be from Wisconsin.

Photos must be mounted with rubber cement or double-sided tape on white posterboard. No frames or glass permitted.

Poster size: 14 x 22"

#### **Class No.**

1. Trail cam photo of a predator (coyote, fox, cougar, etc.). Identify animal and where photo was taken.
2. Trail cam photo of a game animal (wild turkey, deer, bear, etc.). Identify animal and where photo was taken.
3. Plaster cast of animal track, properly identified and where track was found (type of area, - woods, field, etc.)
4. Photo of songbird - 5x7 or 8x10, properly identified and where taken
5. Photo of predator - 5x7 or 8x10, properly identified and where taken
6. Photo of game animal - 5x7 or 8x10, properly identified and where taken
7. Poster with 4 or more "ink" animal tracks, properly identified
8. Poster of 4 wild mammals, properly identified, and identify habitat they live in
9. Poster of 4 birds, properly identified, and Wisconsin area they live in
10. Taxidermy - animal you mounted, properly identified
11. Any other exhibit relating to Wisconsin wildlife